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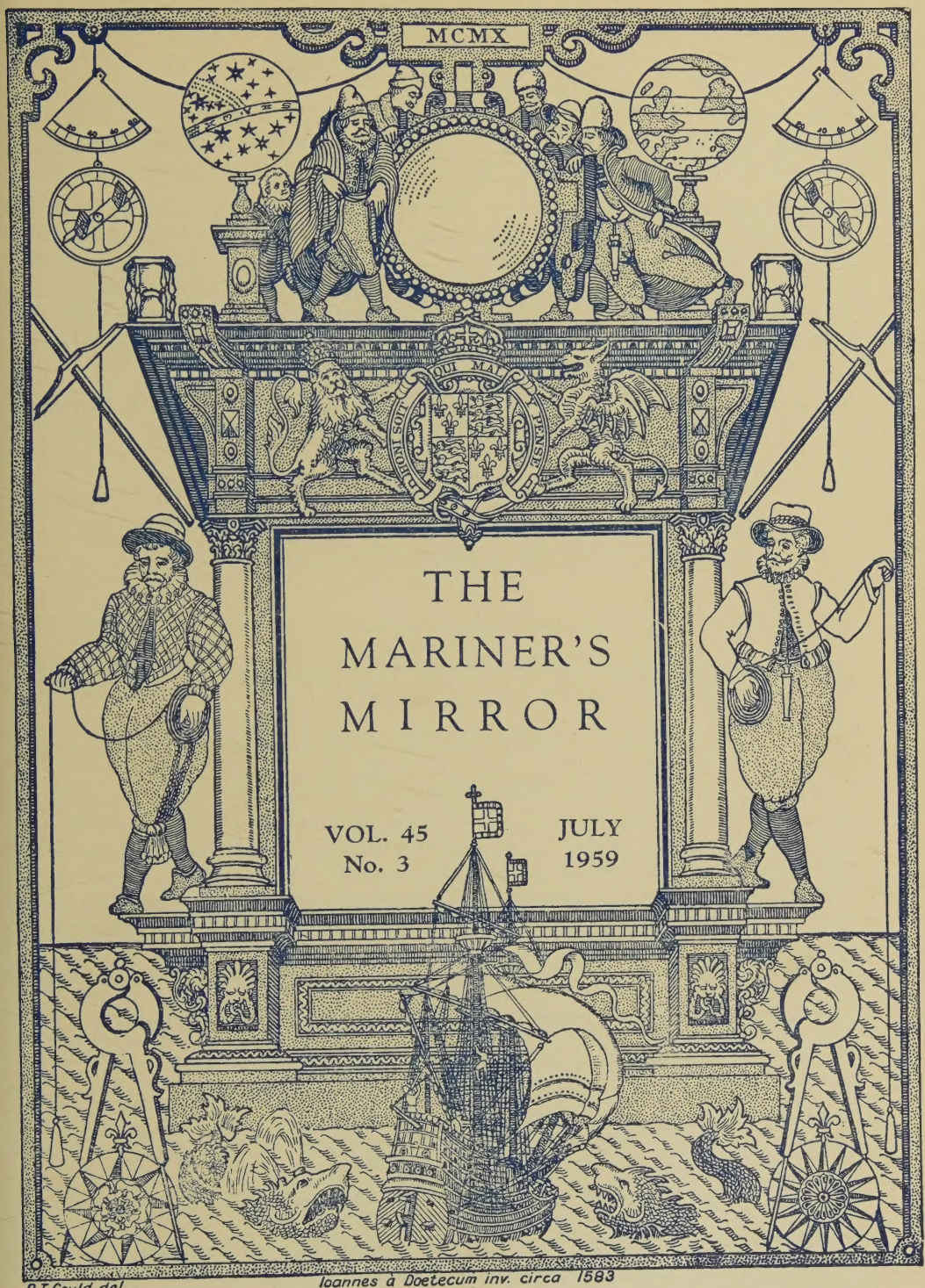

THE MARINER'S MIRROR

VOL. 45 No. 3 JULY 1959

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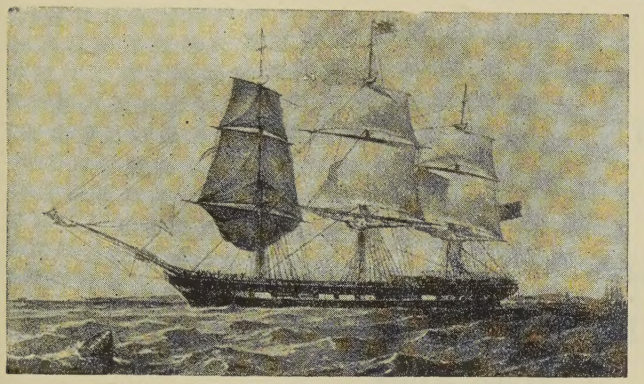

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CORRECTIONS

P. 154, 10th line from bottom, *after* Admiral *insert* Taylor.
P. 158, line 10, *for* braques *read* barques.
P. 161, Left-hand illustration, *for* Exhibition *read* Expedition.

THE ACTION BETWEEN PATER AND OQUENDO, 12 SEPTEMBER 1631

By C. R. Boxer

AS our leading maritime historian observed not long ago: 'We tend to look on the year 1588 as marking the transfer of the dominion of the seas from Spain and Portugal to England and the Netherlands, but the process was not complete for at least another fifty years. Portugal and Spain, then under one ruler, could and did send to Brazil fleets as strong as those of the United Provinces; this was so even in 1639, when their main effort was directed towards Dunkirk with disastrous results.'[1] The naval action between Pater and Oquendo off the coast of Brazil in September 1631 is one of many instances which could be adduced to support Dr Anderson's assertion. This battle, which created a great impression at the time and gave rise to a romantic legend of Pater's heroic end that has lasted down to the present day, has recently been described in a masterly monograph by a Portuguese Capuchin friar which constitutes the definitive study of this subject.[2] That article is inevitably inaccessible to all but a very few English readers: and the only serious account in the English language was written nearly sixty years ago and made inadequate use of the voluminous Iberian sources.[3] Oquendo's original dispatches, which formed the basis of Fr. Leite de Faria's excellent work, having been recently acquired by the present writer, he feels emboldened to tackle this topic himself; particularly since he is acquainted with a few minor sources that the learned Capuchin friar overlooked.

The homeric duel between Pater and Oquendo off the Abrolhos[4] was an episode in the Dutch West-India Company's attempt to conquer an empire in the South Atlantic at the expense of the crowns of Spain and Portugal, which formed a dual monarchy from 1580 to 1640. Portugal, as the

1 R. C. Anderson in *Mariner's Mirror*, Vol. 43 (August 1957), p. 254.

2 Francisco Leite de Faria, O.F.M. Cap., 'O Combate Naval de 1631 junto a costa do Brasil', reprinted from *Brasilia*, Vol. x (Coimbra, 1956). All my references to this scholarly monograph are to the 89-page reprint.

3 G. M. Edmundson in *English Historical Review*, Vol. xv (1900), pp. 38–47. With the exception of Duarte de Albuquerque's *Memorias Diarias* (1654), Edmundson consulted only secondary sources.

4 *Albrolhos*, allegedly derived from the Portuguese 'abre-olhos' ('look-out', 'take care') was a name frequently given by the Lusitanian pioneers to groups of rocks, reefs and shallows; this particular group being situated some 200 miles off the Brazilian coast in about lat. 18° S.

weaker partner in the Iberian world-empire, was the principal victim of the Company's attacks, which, apart from Piet Heyn's spectacular capture of the Mexican Plate-Fleet in 1628, were mainly concentrated against Portuguese possessions in Brazil and West Africa. Once masters of the sugar trade of Brazil, of the gold trade of Guinea and of the slave trade of Angola, the Directors of the West India Company (*Heeren XIX*) hoped to secure the economic and strategic resources wherewith to enable a successful attack to be mounted on the 'fountain-head' of Spanish wealth and imperialism in the form of the silver mines of Mexico and Peru. This was a 'Grand Design' if ever there was one, and though it ultimately failed ignominiously with the surrender of Recife and the remaining Dutch forts in north-east Brazil to the Portuguese in 1654, there were times when it looked as if the first part of the programme was well on the way to fulfilment.

The Dutch offensive opened auspiciously enough with the capture of Bahia, the flourishing capital of Brazil, in May 1624. On the opposite coast of America, at about the same time, another Dutch fleet, mainly equipped by the sister East India Company, tried to take Callao in Peru. This audacious attempt failed, but the Spanish settlements on the Pacific coast were thrown into a state of confusion and alarm. Contrary to Dutch expectations, the loss of Bahia aroused the government at Madrid to decisive action, probably because they recognized that the ultimate Dutch objective 'was not so much the sugar of Brazil as the silver of Peru'. With exceptional speed and thoroughness a combined Hispano–Portuguese armada was mobilized, and the largest fleet that had ever crossed the Line (52 ships, 12,566 men, 1185 guns) appeared off Bahia on Easter Eve, 1625. The demoralized Dutch garrison surrendered to Don Fadrique de Toledo on 1 May, shortly before the arrival of a relieving fleet from Holland which withdrew without venturing a counterstroke. Meanwhile, Dutch efforts to capture São Jorge da Mina (better known as Elmina), on the Guinea coast had likewise disastrously failed; mainly through the negligence of the commanders, 'who', wrote a contemporary chronicler, 'in true military fashion each threw the blame on the other'. If the Dutch had won the first round, their Iberian opponents had won the second—and the West India Company was nearly bankrupt.

The stubborn Calvinists of the Low Lands by the North Sea were not the men to be discouraged by such heavy blows, and better fortune attended their fleets in the next three years. Piet Heyn swept the Brazilian coast clear of Iberian shipping in 1626–27, and in September of the following year he captured the entire silver fleet in the Cuban harbour of Matanzas, a feat never subsequently paralleled. With the treasure derived from these and other Iberian prizes, the West India Company paid all its debts, declared

a 75% dividend, and in 1629–30 fitted out another powerful expedition against Brazil (67 ships, 7000 men, 1170 guns). This time their objective was not Bahia, but Olinda and Recife in the north-eastern province of Pernambuco, the richest sugar-producing region in the world, and the most prosperous part of the Portuguese colonial empire. The chief centres of sugar production were the fertile district called the *Várzea* in the hinterland of Recife, and the corresponding region called the *Reconcavo* around Bahia.[1]

The orders for the commanders of the Dutch expeditionary force of 1630 envisaged not only the capture of Olinda, but subsequently that of Rio de Janeiro (or alternatively of Bahia) and even of Beunos Aires as well. This programme proved to be too ambitious. Although Olinda and Recife were taken without much trouble, the Portuguese under their leader, Matthias de Albuquerque, waged such an effective form of guerrilla warfare in the *Várzea* that this district remained in their hands; and for some time the Dutch invaders had difficulty in maintaining their hold on the two neighbouring towns. A stalemate thus developed in which neither side was able to overcome the other without receiving substantial reinforcements from home, for which they both clamoured. The long-term advantages in this campaign of mutual exhaustion were, as Matthias de Albuquerque reported, mostly on the side of the Dutch. They had local command of the sea and received two or three ships from the Netherlands every month; whereas the caravels that came from Portugal at uncertain intervals had to unload their supplies and soldiers in small roadsteads situated between 80 and 180 miles from the *Arraial*, as the Portuguese fortified camp was called.

Contrary to what is usually asserted, the government at Madrid was seriously alarmed at the news of the Dutch invasion and made strenuous efforts to help the defenders of Pernambuco. The Count-Duke of Olivares, who ruled in effect if not in name, at first ordered the immediate mobilization of another combined armada of the two Iberian Crowns, after the precedent of the powerful fleet which had recovered Bahia so speedily five years before. But conditions had drastically changed for the worse since 1625, in so far as Iberian power was concerned. A series of natural and man-made disasters in the intervening years, coupled with equally urgent demands for men, money and ships, from many other quarters of the globe-girdling Iberian empire, combined to prevent the mobilization of an armada on the scale originally envisaged by Olivares. Instead of sending a fleet to reconquer Recife, he had to rest content with sending one to convoy substantial reinforcements for the defenders of Brazil.

The preparation of this armada at Lisbon took almost exactly a year,

1 For details of the struggle for Bahia and Pernambuco, 1624–35, cf. C. R. Boxer, *The Dutch in Brazil, 1624–1654* (Oxford, 1957), pp. 21–66.

mainly because the Portuguese and Spanish authorities wrangled obstinately about apportioning the financial sacrifices which their respective crowns should bear; but a respectable force of twenty-seven sail was finally assembled in the Tagus, their order of battle being as follows. The first sixteen vessels belonged to or were freighted by the Crown of Castile, the remaining eleven being provided by the Crown of Portugal, though the Portuguese later complained they had to bear the costs of the whole expedition.[1]

	Type	Name	Tonnage	Guns	Gunners and seamen	Soldiers
1.	Galleon	*Santiago de Oliste*	900	44	180	284
2.	Galleon	*Santo Antonio*	700	28	126	218
3.	Galleon	*Nuestra Señora del Buen Sucesso*	700	28	110	219
4.	Galleon	*San Buenaventura*	500	22	83	160
5.	Galleon	*San Martin* of Guipúzcoa	450	18	75	166
6.	Galleon	*San Pedro*	450	20	74	170
7.	Galleon	*San Bartolomé* of Guipúzcoa	444	18	73	155
8.	Galleon	*Nuestra Señora de la Concepción*	601	30	105	185
9.	Galleon	*Nuestra Señora de la Anunciada*	622	26	112	172
10.	Galleon	*San Carlos*	550	24	87	173
11.	Galleon	*San Blas*	400	20	70	147
12.	Galleon	*San Francisco*	400	20	68	172
13.	Hulk	*Angel Gabriel*	428	20	60	160
14.	Pinnace	*Santo Antonio* (ex-*Lion Doré*)	183¾	10	38	38
15.	Pinnace	*San Pedro* (ex-*Saint Pierre*)	134½	8	35	41
16.	Tartan	*Santa Ana Buenaventura*	134	8	13	18
17.	Galleon	*São Jorge*	433	28	99	143
18.	Galleon	*São João Baptista*	440	19	106	110
19.	Galleon	*Santiago*	450	20	97	110
20.	Galleon	*Nossa Senhora dos Prazeres Maior*	381	18	98	99
21.	Galleon	*Nossa Senhora dos Prazeres Menor*	305	18	90	98
22.	Pinnace	*Nossa Senhora da Guia*	150	10	24	29
23.	Caravel	*Santo Antonio*	70	Nil	18	14
24.	Caravel	*Santa Cruz*	120	Nil	22	13
25.	Caravel	*Nossa Senhora da Boa Nova*	100	Nil	20	14
26.	Caravel	*Nossa Senhora do Rozario*	120	Nil	22	28
27.	Caravel	*São Jeronimo*	80	Nil	20	11

1 The above list is based principally on the contemporary papers of Dom Antonio de Ataide, Conde de Castro-Daire and one of the governors of Portugal in 1631–33. These papers are now in the Houghton library of Harvard University (Palha MSS.), and in the Biblioteca Nacional Rio de Janeiro (Cod. Pernambuco, 1–2–35 and 1–2–36), and thanks are due to the respective librarians for permission to utilize them. The corresponding papers in the Spanish and Portuguese archives were used by Fr. Leite de Faria for the order of battle given in his article (pp. 6–10) which accounts for the trifling divergencies between the two lists.

There are a few minor differences between the figures given in this list and those given by Fr. Leite de Faria, but it can be stated in round numbers that the sixteen sail of the Crown of Castile carried some 3800 men and 336 guns, while the eleven sail furnished by the Crown of Portugal carried some 1200 men and 103 guns. Strictly speaking, only the flagship *Santiago de Oliste* (44) was the actual property of the Castilian Crown, being the 'Almiranta Real de La Armada del Mar Oceano', or Vice-admiral's ship of the Atlantic Fleet.[1] The other fifteen vessels of the Castilian contingent were freighted or hired in one way or another. Numbers 8–12 were supplied by the celebrated Ragusan naval contractor, Nicholas de Masibradi and 8 and 9 are often listed simply as *capitania* and *almiranta* of Masibradi. Others were supplied on contract by the province of Guipúzcoa and the four maritime towns of the Cantabrian coast; while nos. 14 and 15 were French vessels from Olonne which had been requisitioned—something which often happened to foreign shipping in Spanish and Portuguese harbours when the naval authorities had to scrape a fleet together. The smaller Portuguese squadron was less heterogeneous, though only the first four galleons belonged to that Crown, the other vessels being freighted.

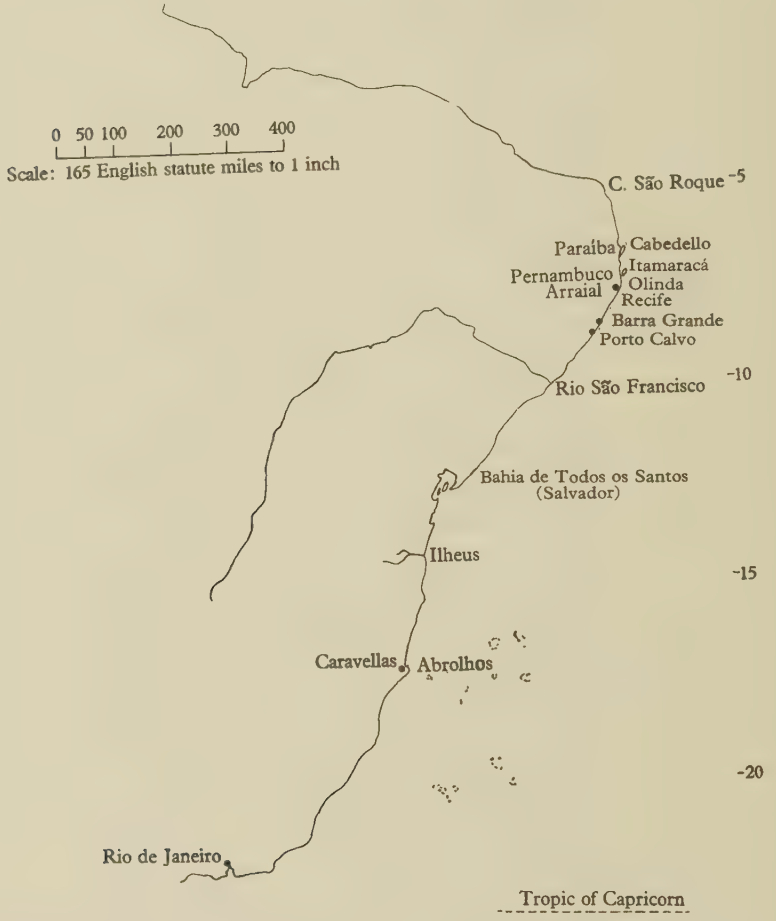
The command of this combined armada was entrusted to Don Antonio de Oquendo, who came of a long line of distinguished Biscayan seamen, and who had begun his own naval service in the galleys of Naples at the age of sixteen. Since then he had served almost continuously in the Mediterranean, the Atlantic and the Caribbean, though only once (in 1622) had his duties taken him as far north as the English Channel. There was a strong strain of knight errantry in Oquendo's character, and it is significant that despite the fact he had spent so much time at sea, he was reckoned as one of the most skilful horsemen in Spain—a country in which the term *caballero* kept its dual connotation of knight and cavalier. He was also a strikingly handsome man, an expert swordsman and a noted duellist, who always made a point of fighting without armour. His whole career at sea showed that his one idea of a naval action was to close with his enemy and board him.[2]

Oquendo's orders were to sail straight to Bahia and land the reinforcements which he was taking for the garrison of that city, which was believed to be threatened, if not actually besieged, by the Dutch. He was then to

1 The Spanish naval commander-in-chief was termed Captain-General and the second-in-command Admiral-General (*Almirante-General*), corresponding to the modern English Admiral and Vice-Admiral; although, of course, the term 'General' was often applied to English naval commanders in the sixteenth and seventeenth centuries. The respective flagships were termed *Capitana* and *Almiranta* in Spanish.

2 Don Miguel de Oquendo, *El Heroe Cantabro. Vida del Señor Don Antonio de Oquendo* (Toledo, 1666); C. F. Fernández Duro, *Armada Española*, Vol. IV (Madrid, 1898), *passim*.

transfer most of the other soldiers in his fleet into caravels and small ships, with a view to landing them in Pernambuco and Paraíba on his homeward voyage with the sugar fleet from Bahia. His task was thus essentially a defensive one, and he had no orders to seek out the Dutch fleet and bring



Brazilian coast between Cape São Roque and Rio de Janeiro, to illustrate the naval operations of 1631.

it to battle, still less to attack the invaders in their stronghold at Recife. If intercepted by the enemy, he was naturally not to decline battle; but the safety of his convoy, whether soldiers or sugar, was the primary consideration.[1] Oquendo left the Tagus with his twenty-seven sail on 5 May 1631

1 Leite de Faria, *Combate naval de* 1631, p. 11.

and entered the Bay of All Saints on the night of 11 July following, after a relatively uneventful voyage save for repairing the leaky galleon *Concepción*, flagship of the Masibradi contingent, when off the island of Madeira (9 May).

The lengthy preparation of Oquendo's armada in the Tagus naturally did not go unremarked in the United Provinces, where news of what transpired in Iberian harbours was regularly published in the news-letters or *corantos*. The Directors of the West India Company accordingly fitted out a powerful fleet of sixteen sail as a counter-move in the winter of 1630–31. These ships were dispatched to Recife individually as they were ready and they had all reached their destination by mid-April 1631.[1] Command of this fleet, and of the other West India Company's ships operating in Brazilian waters, was entrusted to Adriaan Jansz Pater, of Edam, with the title of General. Very little is known of his previous career, it being merely recorded that he had commanded the *Swarte Beer* in the East Indies during the years 1614–17, when he saw some service against the Portuguese on the Coromandel Coast. After entering the employment of the West India Company, he was given command of an expedition to the Caribbean in 1629–30, which sailed some distance up the Orinoco and later sacked the little port of Santa Marta (in present-day Columbia) but otherwise achieved nothing of any importance. Nevertheless, he was evidently held in very high esteem by his contemporaries, and was as great a fire-eater as Oquendo. A contemporary pamphleteer relates how before leaving on his voyage for Brazil, he told his friends that if God gave him the chance of meeting Oquendo's fleet, they would hear of a bloody day.[2]

Soon after Pater's arrival at Recife on 14 April 1631, part of the available shipping (amounting to about thirty sail) was used to mount an expedition against the southern tip of the nearby island of Itamaracá, where a small fort was built, while seven or eight of the largest ships were sent southwards to cruise off Bahia. They all returned to Recife at the beginning of July and thus just missed meeting Oquendo's armada on its way to the Bay of All Saints. Further time was wasted by the Dutch in vainly searching for two outward-bound Portuguese East-Indiamen which had been sighted off the

1 A list of this fleet is given in Joannes de Laet, *Iaerlyck Verhael van de Verrichtinghen der Geoctroyeerde West-Indische Compagnie* (ed. S. P. L'Honoré Naber, 4 vols., The Hague, 1931–37, hereafter cited as De Laet-Naber, *Iaerlyck Verhael*), Vol. II (1932), p. 158. As less than half of these ships participated in the battle off the Abrolhos, this list is not reproduced here. The Dutch order of battle on 12 September 1631 is given *infra*, p. 187.

2 *Een cort ende warachtich verhael van de vermaerde Seestrijdt en loffelycke victorie onder 't beleyt van den Generael Adriaen Janssen Pater teghen de Spaensche Armade onder 't beleyt van Don Antonio Doquendo Biscayn in desen Jare 1631* (Middelburgh, *1631*), hereafter cited as Pamphlet-Knuttel, 4153.

north-east coast of Brazil,[1] and not until the 19 August did they receive a definite report of the presence of Oquendo's armada at Bahia. This report estimated Oquendo's force at thirty sail, including four galleons and fourteen other stout ships. After due deliberation, it was decided by the governing council at Recife to send Pater with some eighteen sail to try to bring Oquendo to action and destroy his armada wherever it might be found. The Dutch commander accordingly left Recife on 31 August, having embarked some 600 soldiers from the local garrison to strengthen his ships' complements.

Meanwhile, Oquendo was busy with the preparations for his homeward voyage. The reinforcements for the Bahia garrison were disembarked, those destined for Pernambuco and Paraíba were trans-shipped into twelve caravels, and the cargoes of sugar-chests and brazil-wood were laden in the warships of the armada and in twenty sail of merchantmen. On the intended day of departure, it was discovered that three of the galleons had sprung leaks; but they were repaired with remarkable speed and efficiency despite the fact that there was only one 'inferior and untrained' diver in the whole armada. On 3 September, Oquendo left Bahia with a favourable wind and fifty-four sail, comprising twelve galleons and two pinnaces of the Crown of Castile, five galleons of the Crown of Portugal, twelve caravels transporting 1192 soldiers, three vessels of Pernambuco and twenty merchant ships laden with sugar.[2] Contrary winds and a strong current then drove him and his convoy southwards to the latitude of the Abrolhos, and here they were sighted to leeward by Pater late on the evening of the 11 September, at a time when the Dutch commander had only sixteen sail with him.[3]

The figures for the ships' companies are given with all reserve, since those for September 1631 have not survived; and the last two columns accordingly indicate the numbers carried when the ships concerned originally left the Netherlands. Several accounts state that Pater left Recife on

1 The carracks *Belem* and *Rosario*, Captain-major Antonio de Saldanha, which lost their voyage and had to put back to Lisbon, which they reached on the 14 September.

2 Oquendo's dispatches of 19 July and 15 October 1631 (writer's collection) *apud* Leite de Faria, *Batalha naval de 1631*, pp. 51–3, 54–5. Oquendo terms the five Portuguese galleons 'galeoncetes' or 'little galleons', though this category would seem to be really applicable only to the two *Prazeres*. Comparing these figures with the list given on p. 182 above, it seems that nos. 13, 16 and 22 were left at Bahia.

3 The names of the ships present are taken from Admiral M. Thijssens's report of 8 October 1631 (Rijksarchief, The Hague, *Oud WIC, Brieven en Papieren uit Brazilie, 1630–1632*, pp. 110–13, old numbering), and their tonnage and guns from the various fleet-lists in De Laet-Naber, *Iaerlyck Verhael*, Vols. II and III. Cf. also Pamphlet-Knuttel, 4153. The letters in brackets indicate the chamber or board to which they belonged: A = Amsterdam; M = Maas; NQ = North-Quarter; SL = Stad en Lande; Z = Zeeland.

Ship	Tonnage	Guns	Sailors	Soldiers
1. *Prins Willem* (A)	1,000	46	150	150
2. *Geunieerde Provintien* (Z)	800	50	159	136
3. *Hollandia* (A)	600	30	125	93
4. *Walcheren* (Z)	560	34	85	166
5. *Provincie Utrecht* (M)	600	38	115	147
6. *Groeningen* (SL)	600	32	110	100
7. *Dordrecht* (M)	500	24	106	41
8. *Amersfoort* (A)	400	28	47	55
9. *Goeree* (A)	340	28	61	109
10. *Griffoen* (NQ)	500	32	141	53
11. *Oliphant* (?)	240	30	62	73
12. *Medenblick* (NQ)	300	22	85	15
13. *Fortuijn* (Z)	320	20	?	?
14. *Nieuw Nederlandt* (A)	200	14	54	24
15. *Mercurius* (A)	400	26	68	51
16. *'t wapen van Hoorn* (NQ)	220	20	86	?

31 August with his ships undermanned as regards sailors; but he was evidently above strength as regards soldiers, in view of the reinforcements he had embarked from the garrison. The probability is, therefore, that he had rather fewer sailors and rather more soldiers aboard than indicated here, but that the total complements were much about the same.

When Pater first sighted the Spanish armada to leeward on the evening of the 11 September, the wind was from the E.N.E., but during the night it shifted slightly, though we are not told to what quarter; and none of the many accounts specify the exact conditions of wind and current on the day of battle. It may be deduced, however, that the weather was fine and the wind easterly though not very strong. The Spaniards first sighted their enemy at daybreak on the 12th, when they saw the sixteen Dutch vessels, described by Oquendo as 'great galleons' (*galeones gruessos*), about six miles to windward of them. They were not taken by surprise, as they had been on the lookout for the Dutch fleet ever since they left Bahia, and had sighted three of Pater's scouting yachts on 3 and 4 September. But the Iberian crews had a good night's rest on the night of the 11/12 September, whereas the Dutchmen, who knew that they would have to engage the enemy on the following day, spent a sleepless night in preparing their ships for battle.[1] One of the Dutch captains estimated their position as being in 'latitude

1 For my account of the battle off the Abrolhos, I have relied chiefly on the following: Oquendo's original dispatch of 15 October 1631 (author's collection), *apud* Leite de Faria, 'Combate naval de 1631', pp. 54–61, this dispatch being the basis of various *Relaciones* printed at Seville, Madrid, and Lima in 1631–33; Duarte de Albuquerque Coelho, *Memorias Diarias de la guerra del Brasil* (Madrid, 1654), fls. 56–60, the author being an eye-witness in one of the transport-caravels. The principal Dutch accounts have been consulted in the originals in the

seventeen degrees and some minutes, about 150 or 180 miles from the land'.

As soon as it was light on the morning of the 12th, Pater made signal for his captains to come aboard the *Prins Willem*. When they were all assembled, he told them of his intention to attack the enemy forthwith, every two of the Dutch ships being allotted one of the eight largest galleons as an opponent. Pater specified that his own flagship supported by the *Walcheren* would board the *Santiago*, while Admiral Thijssen in the *Geunieerde Provintien* supported by the *Provincie Utrecht* would tackle the Spanish *almiranta*; and to avoid any misunderstanding, each captain was given a written note specifying his consort and his opponent. Pater then asked if they were all prepared to follow his example and fight courageously at close quarters, to which they answered affirmatively. He added that any captain who failed to do his duty would be hung from the yardarm, and all those present then drank a toast in Brunswick beer (*Mom*) to the success of the day. All accounts agree that Pater was in excellent spirits, being convinced that his long-sought opportunity had come, and that the disparity in force was more apparent than real since the majority of Oquendo's armada were transports and merchantmen.

Meanwhile, a somewhat similar scene was being enacted aboard Oquendo's flagship, for the Spanish leader was equally confident of the outcome of the day. The Count of Bagnuolo, the Neapolitan commander of the reinforcements embarked for Pernambuco and Paraíba in the caravels, suggested to Oquendo that he had better trans-ship some of these soldiers to reinforce the crews of the galleons, but Oquendo retorted scornfully that this was not necessary as the enemy was 'small stuff' (*poca ropa*). Moreover, he pointed

Rijksarchief at the Hague, 'Oude WIC, No. 49'. They comprise the reports of J. A. Calf (? August and 3 October 1631), pp. 70–84; journal of Joris van Leeuwen for August and September with covering letter of 5 October (pp. 86–7 and 118–25); report of the admiral M. Thijssen, d. 8 October 1631 (pp. 110–13, 170–7), report of P. Serooskerken, d. 8 October 1631 (pp. 30–57), and the examination of various ships' officers at Recife in September and October 1631 (pp. 330–53). The chief printed Dutch sources are De Laet-Naber, *Iaerlyck Verhael*, Vol. III, pp. 14–24; Pamphlet-Knuttel, 4153, cited in note (2) on p. 185 above; and the court-martial sentences pronounced on the delinquent captains in 1633 (*Kroniek Historisch Genootschap van Utrecht*, Vol. XXIX (1873–74), pp. 231–40. The chief of the numerous secondary sources, whether Dutch or Iberian, are listed in J. H. Rodrigues, *Historiografia e bibliografia do dominio holandês no Brasil* (Rio, 1949), pp. 226–28, to which should be added Fr. Leite de Faria's definitive study, 'Combate naval de 1631', cited at the beginning of this article. My thanks are due to Professor J. A. Gonsalves de Mello for assistance in deciphering some of the more difficult specimens of handwriting in the original Dutch reports, and to the authorities at the Rijksarchief for supplying photostats of all the principal documents. I have also used the transcripts of the evidence given by the Dutch prisoners at Lisbon and Oporto in November–December 1631 (author's collection, and in the Ataide MSS. at the Biblioteca Nacional Rio de Janeiro, and in the Palha codices of the Houghton Library, Harvard University, by kind permission of the authorities concerned).

out, correctly enough, that if the armada became dispersed in the course of the action, it might be impracticable to get the soldiers on board their transports again. Oquendo calculated his position as being 18° southern latitude, eighty leagues from land, and to the east of the Abrolhos. The transports and merchant ships had orders to keep to leeward under the protection of the seventeen Spanish and Portuguese galleons ranged in a half-moon; but these injunctions were not properly obeyed, and when the battle began Oquendo noted with displeasure that four of the galleons[1] remained to windward of the *Santiago*. He also ordered that all ranks and ratings should carry out their duties in strict silence, save for the necessary commands issued by the senior officers, who would thus be able to make themselves heard above the din of battle.

The offensive spirit of the rival commanders-in-chief was not shared by the majority of their respective subordinates. When Pater in the *Prins Willem* bore down on Oquendo's flagship, and Maerten Thijssen in the *Geunieerde Provintien* steered for Admiral Don Francisco Vallecilla in the *Santo Antonio*, they were closely supported by their respective seconds, the *Walcheren* and the *Provincie Utrecht*. But only three other Dutch ships followed their example, the *Hollandia*, *Amersfoort* and *Fortuyn*, the remainder contenting themselves with cannonading the enemy from a respectable distance, without making any serious attempts to board. Similarly, on the Iberian side, only about half-a-dozen ships were closely engaged and most of the galleons made no genuine efforts to close with their laggard opponents. The action therefore resolved itself into a homeric duel between Pater and Oquendo, well supported by their respective seconds and a couple of other vessels, while the remainder of both fleets were spectators of their bloody combat.

Thijssen and Vallecilla were the first to come to grips. The *Santo Antonio* discharged a broadside at the *Geunieerde Provintien* when she came within range, but the Dutch admiral reserved his fire until he had clamped the Spanish galleon aboard, when he poured in a broadside with devastating effect. Vallecilla himself was severely wounded and 60 out of his 150 soldiers were killed by this first onset, the *Santo Antonio* being soon reduced to a shambles. Nevertheless, she fought gallantly on until about 4 p.m., when she finally broke up by the stern and sank, carrying many of those on board to the bottom. Vallecilla and the survivors threw themselves into the sea, where most of them perished, though some were saved by the Dutch and others were eventually picked up by their compatriots. Before this happened, the *Santo Antonio* had been boarded on her other side by the *Provincie Utrecht*

1 *Nuestra Señora de la Anunciada, San Buenaventura, San Carlos, San Bartolomé.*

and while the three ships were locked together in a fierce struggle, the *San Buenaventura* came up to relieve Vallecilla. So unhandily did she manoeuvre, that she drifted athwart the bows of the three ships and thus prevented the *Santo Antonio* from disengaging herself as she was trying to do. At this point the *Provincie Utrecht* caught fire, broke loose, and eventually sank. The *Geunieerde Provintien*, after finishing off the shattered *Santo Antonio*, as related above, now turned her attention to the battered *San Buenaventura*, which she captured after most of those on board were killed.

About 10 or 15 minutes after the two admirals had come to grips, Pater and Oquendo became locked in an equally fierce combat. Disregarding the fire of the four galleons to windward of the *Santiago*, the *Prins Willem* steered straight for the Spanish flagship in a way which aroused the outspoken admiration of the chivalrous Oquendo.[1] Pater reserved his fire until just before boarding the *Santiago* on the starboard quarter, when he discharged a heavy broadside to which the Spaniard replied equally effectively. Just before the moment of impact, Oquendo shouted to the helmsman to put the tiller hard over, with the result that when the two ships collided they swung round into the wind and thus gave the *Santiago* the weather gauge. This brilliantly executed manoeuvre subsequently proved Oquendo's salvation. When the two flagships were thus ranged alongside, Pater threw a grappling iron into the *Santiago*, 'doubtless because he thought that we would make more use of our feet than of our hands', wrote Oquendo indignantly, 'despite the fact that he had seen us resolutely waiting for him'.[2] Not to be outdone by the Dutchman's bravado, Oquendo ordered that the two flagships should be made fast with a hawser, which one of his officers, Juan de Cutillo, achieved by boarding the *Prins Willem*, though at the cost of his life.

The two flagships continued to fight it out board on board for some hours, and it seemed to the onlookers as if the discharges of cannon and musketry were almost continuous. Their preliminary broadsides had already done a good deal of execution among the boarding parties that were ranged on their respective upper decks, and subsequent attempts by either side to board the other were equally unsuccessful, save for Captain Cutillo's outstanding but individual feat. Dutch sharpshooters and grenade throwers on the round-tops of the *Prins Willem* did great execution in the *Santiago*,

1 '...tan superior a todos en el tamaño, bien artillado i dispuesto que parecia se le deuia justamente el nombre que tenia de Principe, i no menos al General Adrian Ans Pater que venia en el, de valiente...' (Oquendo's dispatch of 15 October 1631).

2 'Echonos luego el arpeo i sin dubda devio de azerlo por persuadirse a que nos baldriamos mas de los pies que de las manos, como si no nos hubiera visto esperarle a pie quedo' (Oquendo's dispatch of 15 October 1631).

but Oquendo, though he was directing the battle unarmoured on the quarterdeck, was luckier than Nelson on board the *Victory* at Tralfagar. He miraculously escaped without a scratch, though exposed to enemy fire at close quarters for some six or seven hours; and Pater bore an equally charmed life in the *Prins Willem* until the outcome of this homeric duel was no longer in doubt.

Soon after the beginning of their fierce engagement, Jan Mast in the *Walcheren*, who had been detailed as Pater's second, boarded Oquendo's flagship on the other quarter, but was eventually forced to sheer off in a badly damaged condition after suffering heavy casualties. While the three vessels were still board on board, the smallest Portuguese galleon, *Nossa Senhora dos Prazeres Menor*, Captain Cosme do Couto, came up to support the *Santiago*, but, like the ill-fated *San Buenaventura*, she drifted athwart the bows of the two great Dutch ships, and was promptly sunk by them, though not before she had diverted some of their fire from Oquendo at a critical moment. The fight between the *Santiago* flanked by the *Prins Willem* and *Walcheren* continued more fiercely than ever, and the weight of metal was indubitably on the side of the Dutchmen. The *Prins Willem*'s armament included 26 guns of bronze, most of them 46- or 48-pounders, whereas although the *Santiago*'s 44 guns were all of bronze, the heaviest were only 22-pounders. Moreover, the *Santiago* could not use her lower tier, and her quarter-deck was raked by fire from the poops of the two Dutchmen.[1]

This murderous combat continued until about 4 p.m., when all three contestants were thoroughly exhausted and had suffered heavy casualties. When the *Nossa Senhora dos Prazeres* went to the bottom, the *Nuestra Señora de la Concepción*, flagship of the Masibradi squadron, came up by the quarter of the *Prins Willem* and engaged the Dutch flagship closely, but for some time the issue remained in doubt. Finally, a lucky (or a well-directed) shot from one of the *Santiago*'s prow-chases entered by a gunport of the *Prins Willem* together with the tampion and charge, thus starting a fire on the latter's deck.[2] The Dutchmen made every effort to put it out, but Oquendo ordered his musketeers to concentrate their fire on this spot and the blaze gradually gained hold and spread. Before the fire completely got out of control, Pater was hailed by Jan Mast of the *Walcheren*, who suggested that he should abandon his flagship, but the Dutch commander refused to do so, thinking that his men might yet extinguish the blaze.

1 'Vine yo a quedar en medio de los dos desde el medio cuerpo del galeon a proa i sus popas que seruian de valuartes sobre nuestra plaça de armas, haçiendose travesses el uno al otro' (Oquendo's dispatch of 15 October 1631).

2 'Y obrando Nuestro Senor fue servido que con una pieza de proa se le metiese a la cappitana del enemigo taco y fuego i toda la carga por una porta de S. Baruora, de donde començo luego a prender el fuego' (Oquendo's dispatch of 15 October 1631).

When he finally realized that this was impossible, it was already too late. The *Walcheren* was too badly battered to render any further assistance of any kind; and though several other Dutch ships, including the *Hollandia*, *Goeree*, *Amersfoort* and *Groeningen*, were at one time or another near enough to do so, they all failed to achieve anything for want of resolution.[1]

Meanwhile, the fire had spread to the *Santiago*'s foremast and she was also ablaze in five or six other places. Oquendo, nevertheless, contrived in this extremity to pass a cable to the *Concepción*, which was just astern, and in the nick of time was towed clear of the blazing *Prins Willem*, whose standard he had secured as a trophy. The fires in the *Santiago* were then speedily extinguished with the aid of men sent by Captain Juan de Prado of the *Concepción*; but the Spanish flagship was now, like the *Walcheren*, no better than an unmanageable hulk and incapable of further manoeuvring. It was just about at this time (say 4 p.m.) that Thijssen had sunk the *Santo Antonio* and captured the *San Buenaventura*; but he had likewise been severely mauled in his victorious struggle and was in no condition to tackle Oquendo. As if by common consent the battle was broken off, and each side withdrew to count the cost. Oquendo humanely gave orders to rescue not only the swimming survivors of the sunken Spanish ships but the Dutchmen from the *Prins Willem* and *Provincie Utrecht* as well. At about 5 p.m. the fire reached the powder-magazine of the blazing *Prins Willem* and she blew up with a deafening explosion. Having collected his scattered ships, Thijssen withdrew slowly northwards during the night, the wind and current having shifted round to the south. The battle had lasted for some six or seven hours, for the eyewitness accounts differ as to whether it began at eight, nine, or ten in the morning.

The casualties on both sides were heavy, though inevitably confined mainly to those few ships which had borne the brunt of the action. The *Santiago* had 53 dead and 68 wounded, out of a total casualty list on the Iberian side of 585 dead and missing and 201 wounded.[2] Thijssen in the *Geunieerde Provincien* had 33 dead and 28 wounded out of a total Dutch casualty list of 350 dead and missing and 'over 80 wounded'.[3] The

1 'Pater, soo hij doot is, is verlaeten van een hoop schelmen en poltroons ende is als een valereus helt gestoorven', wrote Paulus Serooskerken from Recife on the 8 October 1631, before the details of Pater's death were known. Compare the evidence of the defaulting captains at Recife as given in Rijksarchief, The Hague, *Oud WIC*, No. 49, pp. 330–54, and the court-martial sentences printed in *Kron. Hist. Gen. Utrecht*, Vol. XXIX, pp. 231–40.

2 Oquendo's dispatch of 15 October 1631. This total includes those taken prisoner by the Dutch, who were listed by Oquendo among the missing.

3 Rijksarchief, The Hague, *Oud WIC*, No. 49, pp. 146–54, 'Generale Missive en Bijlagen', d. Recife 1 October 1631, containing the official report of the action. This total likewise includes those taken prisoner by the Spaniards, who were listed by Thijssen among the missing. Maarten Thijssen subsequently had a distinguished career as an admiral in the Swedish service, 1644–57.

Iberian casualties were thus considerably heavier on the day of battle, but as 140 of the prisoners escaped a few weeks later in the ship that was taking them to the West Indies, the final balance-sheet was less unequal. Oquendo's flagship had lost most of her senior officers, including her captain and first-pilot, this latter being a Scotsman whose name is given as 'John Camel'. Out of ten naval and military captains who were aboard the *Santiago*, seven were killed and two wounded. In his official reports, Oquendo did not forget to commend to the King's generosity those who had given so freely of their blood and their lives in defending the royal standard,[1] enumerating not only the officers but many of the seamen by name.

The two fleets were out of sight of each other next morning but both were slowly driving northwards with the wind and tide, repairing damages as they went. Duarte de Albuquerque assures us that the *Santiago* was only kept afloat by the exertions of the Dutch sailors whom Oquendo had rescued from a watery grave, and who showed their gratitude in this way.[2] On 15 September the fleets sighted each other again, but neither was anxious to renew the struggle, the *Santiago* and *Walcheren* not having completed their repairs. On the 17th, the two fleets were in sight of each other once more, but kept their distance. At sunset that evening, Count Bagnuolo approached the *Santiago* in his caravel, and suggested to Oquendo that the twelve transport-caravels with the reinforcements for Pernambuco and Paraíba should change course during the night and sail closer inshore with a view to landing their men at the first convenient roadstead. Oquendo agreed to this suggestion and the reinforcements for Pernambuco were duly landed on 21 September at the Barra Grande of Porto Calvo, twenty-five leagues south of the *Arraial* for which they were destined. The caravel for Paraíba overshot the mark, but disembarked her artillery and men at Rio Grande do Norte a few days later; and this detachment reached Paraíba in time to help repel a Dutch attack on the fortress of Cabedelo in December.

When the caravels were safely out of sight on 18 September, Oquendo called a council of war on board the *Santiago*, at which it was decided to make an attempt to recapture the *San Buenaventura* if an opportunity

1 'Son tantos los que con tanto gusto i voluntad ofreçieron su sangre y vidas en defensa del Estandarte Real de V. Magd. (que tambien salio con siete cañonaços sin muchos mosquetazos)'... wrote Oquendo in his dispatch of 15 October 1631. Compare also his enumeration of those deserving of promotion and rewards in his letter of 25 July 1632 (author's collection) *apud* Leite de Faria, *Batalha naval de 1631*, pp. 87–8.

2 *Memorias Diarias* (Madrid, 1654), fl. 59. Details of the extra wine-rations issued to those engaged in the repairs are in Torre do Tombo, Lisbon, Corpo Cronologico, II, maço 360.

should present itself.[1] The opportunity did not present itself, however, as the Dutch continued their retreat to Recife, which Thijssen entered on 21–22 September with most of his ships, the leaky prize, *San Buenaventura*, only arriving on the 29th, escorted by Jan Mey in the *'t wapen van Hoorn*. Oquendo sailed past the roadstead of Recife just as Thijssen was entering the harbour, but the Dutch made no attempt to engage him. Secure in the knowledge that by now the caravels must have landed the reinforcements somewhere on the coast of Pernambuco without interference from the enemy, Oquendo continued his voyage to Lisbon. He had only nine merchant-ships in company, as the remainder had slipped their convoy on the night of 12/13 September, thinking it safer to make their way to Lisbon independently, though forbidden on pain of death to do so.[2] When off the Azores, the armada ran into stormy weather on 5–9 November, during which the *Nuestra Señora del Buen Sucesso* foundered with all hands at midnight on the 6th. When the wind abated, Oquendo fell in with some of the truant sugar ships and entered the Tagus on 12 November with some twenty sail, having been preceded by several vessels of the convoy and the remainder came in later.[3] His mission had been successfully accomplished, albeit at heavy cost.

When Thijssen's ships straggled into Recife roadstead on 21 and 22 September, the governing council at first thought of sending them out again in pursuit of Oquendo, but they soon changed their minds. A German eye-witness has recorded the consternation caused by the sight of so many mangled dead and wounded bodies aboard those ships which had fought well, and there were even considerable casualties among some of those that had kept their distance.[4] Thijssen demanded that 640 soldiers should be drafted from the garrison to replenish his ships' complements, but the council declared they could not consent to this. The project of pursuing Oquendo was therefore dropped, particularly as the naval and military leaders had every reason to be dissatisfied with the behaviour of the majority of ships' captains on the 12th, and a court of enquiry was held into their misbehaviour.[5] The principal culprits were brought to trial on return to the Netherlands, and though none of them received the death sentence, they

1 The minutes of this council are printed in Leite de Faria, *Batalha naval de 1631*, pp. 53–4.

2 'No obstante que tenian orden de no apartasse pena de la vida y perdimiento de vienes' (Oquendo's dispatch of 15 October 1631).

3 Oquendo's dispatches of 12–13 November 1631 (author's collection) and other documents *apud* Leite de Faria, *Batalha naval de 1631*, pp. 62–75.

4 Ambrosius Richshoffer, *Reise nach Brasilien 1629–1632* (ed. S. P. L'Honoré Naber, The Hague, 1930), pp. 87–8. Similarly, even the galleons that failed to support Oquendo incurred considerable casualties, according to Duarte de Albuquerque.

5 Rijksarchief, The Hague, *Oud WIC*, No. 49, pp. 330–54.

did receive sentences ranging from banishment for life to dishonourable discharge.[1] The official dispatches of the council at Recife leave no doubt that they considered Oquendo to be the victor, and one of their first reactions to the defeat was to order the evacuation of Olinda and the concentration of their forces at Recife.

It was some time before the fate of Pater was known, and by that time romantic legend had evidently got a good start of prosaic fact. When Thijssen and his comrades returned to Recife on 21/22 September, they knew that Pater was missing, but they were not certain that he was dead, since there was a possibility that he might have been picked up by the Spaniards. Only five or six survivors of the *Prins Willem* had been saved by the Dutch, and these were evidently prudent individuals who had taken refuge aboard the *Walcheren* while she was still entangled with the *Santiago* and the Dutch flagship.[2] Oquendo in his report on the 15 October 1631, merely states that the Dutch prisoners (or some of them) had told him that Pater had thrown himself into the sea where he was drowned.[3] Some of these eyewitnesses were later more specific, and stated that Pater had tried to save himself by clinging to the broken bowsprit of the *Prins Willem* which was floating in the sea, but had eventually lost his hold and was drowned.[4]

Though none of the contemporary Dutch sources, whether printed or manuscript, indicate that Pater met his end other than in this or in some very similar way, a story soon spread that rather than surrender or acknowledge defeat, Pater had wrapped himself in the Dutch standard and flung himself in full armour into the sea where he was drowned. This version first appears in print in the *Valeroso Lucideno* of Fr. Manuel Calado,

1 'Sententien van de rechters, gecommitteerd door de collegien ter admiraliteit, 1633', in *Kron. Hist. Gen. Utrecht*, Vol. XXIX (1873–74), pp. 231–40.

2 Thijssen's dispatch of 8 October 1631 in Rijksarchief, The Hague, *Oud WIC*, No. 49, pp. 110–13.

3 '...quedando ya ahogado el general Pater que o desesperado (como su gente lo dice) o huyendo del fuego se echo a la mar' (Oquendo's report of 15 October 1631).

4 Report of Jacob Janssen Hes, in Rijksarchief, The Hague, 'Brieven van uit Brazilië aan de Saten Generaal 1630–1634', under the year 1632, nr. 5771. De Laet gives a slightly different version, stating that Pater hung by a rope for some time from the bowsprit of the *Prins Willem* before falling exhausted into the sea. Hes, who was on board the *Prins Willem*, states categorically that her bowsprit was knocked off by the collision with the *Prazeres Menor* and was floating in the sea, though still attached by some tackle to the flagship, when Pater vainly tried to save himself by sitting on it. Peter Green of Scarborough, the sole survivor of nine English soldiers aboard the *Prins Willem*, testified together with two Dutchmen who had been picked up by the Spaniards from the same ship, that Pater, 'seeing that all was lost, took his sword and threw it into the sea, and then raising his hands towards heaven, he threw himself after the sword and was drowned'. (Evidence of the three survivors given at Oporto, 3 November 1631, MS. in the author's collection *apud* Leite de Faria, *Combate naval*, pp. 63–4.)

published at Lisbon in 1648, and though it was flatly contradicted by De Laet's more prosaic and reliable account which had been published four years earlier, it speedily gained general belief and currency. It was still accepted by Edmundson in 1900, who wrote that 'the proud spirit of the unvanquished seaman preferred the ocean for a tomb rather than captivity in the hands of his enemies', and many other writers have taken the same line. Apart from the fact that Oquendo carried off the standard of the *Prins Willem* as a trophy, reference to the original Dutch and Iberian sources proves that this romantic story was a later invention.[1]

After the battle both commanders complained bitterly of the behaviour of their laggard subordinates. Duarte de Albuquerque bears witness that Oquendo severely reprimanded some of his faint-hearted captains next day; but the Spanish commander admitted in his official report of 15 October that it was perhaps just as well that their ships had not been boarded by the Dutch, as they would in all probability have come off second best. Their misconduct was reported to the Council of War at Madrid, but it was finally decided to take no action against them, since the publicity attending such a move would detract from the prestige of Spanish arms at home and abroad.[2] It was generally believed that the reason these captains had not wished to board the enemy was undue concern for the safety of their sugar chests, with which they were more heavily laden than they should have been. Even so, the majority had incurred a certain number of casualties from the long-distance cannonade which was their share of the fight.

The Dutch, as we have seen, brought some of their defaulting captains to trial, and the evidence given at the preliminary court of enquiry at Recife disclosed the details of how Pater was left to his fate. The *Hollandia* was resolutely handled until her captain, Thomas Sickersz, was killed; but the master who took his place flatly refused to go to the aid of the burning *Prins Willem*, or even to allow the ship's boat to be lowered to bring Pater off, as the commander of the soldiers on board repeatedly urged him to do. The captain of the *Groeningen* got as far as lowering a boat and manning it, with a view to saving the survivors, but subsequently changed his mind and recalled his men. Jan Groot, captain of the *Mercurius*, admitted that he saw a lot of smoke coming from the flagship, but pleaded that he did not realize how critical Pater's plight was. Similar excuses were advanced by those on board the *Goeree*. The skipper of the *Dordrecht* said he hung back because his consort, the *Hollandia*, was doing likewise. The captain and

1 Cf. Leite de Faria, *Batalha naval de 1631*, pp. 36–40, for a well-documented discussion of Pater's end.

2 *Consulta* of the Council of War, d. Madrid, 26 November 1631 (author's collection) *apud* Leite de Faria, *Batalha naval de 1631*, pp. 75–6.

master of the *Oliphant* blamed their consort, the *Groeningen*, for not boarding one of the galleons as ordered; and the officers of the *Groeningen* excused themselves by blaming the *Oliphant* for failing to give a lead.[1] In short, as Barlaeus wrote of the Dutch disaster at Elmina in 1627, 'in true military fashion, each threw the blame on the other'.

Oquendo's spectacular if costly victory gave him a European reputation, and after further distinguished service in the Caribbean and Mediterranean he was selected to command the ill-fated armada which was dispatched with troop reinforcements for Flanders at the end of August 1639. The story of this disastrous expedition, which culminated in Oquendo's defeat by M. H. Tromp at the battle of the Downs (21 October 1639), is readily available elsewhere,[2] and I am only concerned here with certain incidents in this campaign which recall that of eight years earlier. In the fighting-instructions issued to his captains on the day of leaving La Coruña (31 August 1639), Oquendo stated categorically that nobody else was to tackle the Dutch flagship as this was reserved for himself.[3]

On sighting Tromp's fleet of thirteen sail off Beachy Head on 15 September 1639, Oquendo addressed a hurriedly convened council of war in the *Santiago*, in words which showed that he had not learnt caution from his bloody duel with Pater. 'Well, gentlemen', he said, 'the enemy is small stuff. Let each one do his best, for I have a fine horse. The flagship will set a good example!' Next day, he endeavoured to make good his boast, but Tromp in the nimbler *Prinses Amelia* evaded all the *Santiago*'s attempts to board, and the same thing happened when the action was renewed on 18 September. Once again, Oquendo was ill supported by the great majority of his armada, and the *Santiago* was very badly mauled by the concentrated fire of several Dutch ships, including the *Prins Frederick Hendrick* of Vice-Admiral Witte Corneliszoon de With, who had joined Tromp with five sail early on the 16th. The Spanish flagship had nearly a hundred casualties on the first day alone, and apparently suffered even more severely in the second encounter, though Oquendo as usual seemed to bear a charmed life amid the carnage around him.[4]

For the next few weeks the Spanish armada lay blockaded in the Downs, while the Dutch were rapidly and continuously reinforced from the United Provinces till they numbered over a hundred sail. Shortage of gunpowder

1 Rijksarchief, The Hague, *Oud WIC*, No. 49, pp. 330–54.

2 C. R. Boxer [ed. and trans.], *The Journal of Maarten Harpertszoon Tromp, Anno 1639* (Cambridge, 1930). Cf. also, *Mariner's Mirror*, Vol. XL (February 1954), pp. 40–4.

3 'Ningún navío combatirá con la capitana enemiga, que el General reserva para el suyo' (Duro, *Armada Española*, Vol. IV, pp. 224–5).

4 C. R. Boxer, *Journal of M. H. Tromp*, pp. 35–47; Miguel de Oquendo, *El Heroe Cantabro*, fls. 30–33, quoting Oquendo's original dispatch of October 1639.

was one of Oquendo's main problems in his demoralized, dispirited and ill-found fleet, and when Tromp heard this he offered (through the English) to supply his antagonist with 500 barrels. When the English liaison officer, Captain Robert Slingsby, transmitted this offer to Oquendo, the latter replied: 'the which if they will performe, and give him but leave to send away a thousand sick soldiers for Flanders, as he was a gentleman he would goe out of the road with them, and give them fighting work enough'. This challenge was repeated in writing later in the same day by Oquendo, who assured the Hollanders that 'he would accept of their proffer, and would give them their bellys full of fighting'.[1]

In the upshot, although Tromp fetched some masts for the Spaniards from Dover, the powder was not supplied by him but by the English at exhorbitant rates, and then only late on the evening of 20 October. Early next morning, Tromp struck his long-awaited blow, and opened the action in thick and misty weather. Most of the Spaniards offered little or no resistance, but Oquendo proved as good as his word, as Peter White noted in his journal of that memorable day. 'For the Spanish Admirall Don Anthony de Oquendo, his ship going better than the rest of his fleet, kept close to the Portugall Don Lopus de Ossa,[2] which were two hot ships, and behaved themselves so bravely, that as I was informed from sufficient men of Dover, not one of the Hollanders durst come up alongst their broadside, untill one desperate Sparke in one of the Hollands Pinnesses clapt the Portugall Admirall abord, upon the weather bow amongst his anchors, which intangled him and hindred his way, and presently five of their fire-ships boarded him on both sides, and fired all on a sodaine and burnt all 7 together. Don Anthony de Oquendo upon this fearing the like, made all the sayle that he could to the Westwards, divers of the rest of the Spanyards they tooke. But of that hereafter.'

The truth of this was attested by Tromp himself to Peter White when he returned to the Downs after the battle. 'Also he said, that the prime Admirall Don Anthony de Oquendo never cut his mainsayle nor let fall his sprit sayle, but continued by his consort Don Lopus so long as he could succour him, but when he see him fired, and past hopes of Reliefe, he made all the saile that he could and with the Admirall of Donkerke and divers other ships of his fleet, he ran away to the westwards.'[3] Tromp's failure to board the *Santiago* was later criticized by his enemies and rivals in the

1 Peter White, *A memorable sea-fight penned and preserved by Peter White, or a narrative of all the principall passages which were transacted in the Downes in the year 1639* (London, 1649), under the date of Friday 4/14 October.

2 Don Lope de Hoces y Córdoba in the great Portuguese galleon *Santa Teresa*.

3 Peter White, *A memorable sea-fight*, under 11/21 and 12/22 October.

United Provinces, and more particularly in two vicious pamphlets whose publication was sponsored by his second-in-command, Vice-Admiral Witte de With, who was insanely jealous of his chief.[1] It was even alleged by his Zeeland colleague, Vice-Admiral Johan Evertszoon, 'on the 24 March anno 1641, in the Swan Inn at The Hague', and in front of many other people, that Tromp 'had never dared to come within the length of two cannon-shot of Oquendo'.[2] These allegations can be dismissed as malicious gossip, but the fact remains that Don Antonio de Oquendo demeaned himself no less courageously on that disastrous day than he had done with better fortune against Pater eight years before.

From the time that he first met Tromp in the Channel until he brought the battered *Santiago* with 1700 cannon shot between wind and water into the safety of Mardyck and Dunkirk on 22 October, Oquendo had never changed his clothes and had had hardly any sleep. 'Now it only remains for me to die, since I have brought the flagship and the standard with honour into port', he ejaculated bitterly on entering the harbour, and he was already a broken man in health if not in spirit. His strong constitution was undermined both by the melancholia caused by the defeat of the 21 October—so dishonourable for many of his subordinates though not for himself—and by the fever which his five weeks' vigil in sodden clothing had brought on. Although he lived long enough to lead back to Spain some twenty sail which had survived to fight another day, he died on the 8 June 1640, soon after he came ashore at La Coruña.[3] But though Tromp had avenged the death of Pater, the vanquished protagonist of 1640 no less than that of 1631, had preserved his honour intact.

1 *'t Samen-spraeck, over de loffelijcke daden van den Zee-heldt Marten Harpersz. Tromp* (n.d., n.p., but *c.* 1641–2); *Collyrium ofte costelijcke Ooghen-salve* (Leeuwarden, 1647).

2 *Collyrium, ofte costelijcke Ooghen-salve* (Pamphlet-Knuttel 5591), p. 21. Cf. *'t Samen-Spraeck* (Pamphlet-Knuttel 4682), pp. 3, 11–13, 16, 19.

3 Miguel de Oquendo, *El Heroe Cantabro*, fls. 36–40; C. F. Duro, *Armada Española*, Vol. IV, pp. 215, 261–2.

AMERICAN PRISONERS OF WAR IN GREAT BRITAIN 1777–1783

By Eunice H. Turner, M.A.

THE situation of Americans brought into the British Isles as prisoners during the War of Independence was coloured throughout the conflict by the fact that they were participants in a civil war. Stephen Hall, taken prisoner while prize master of the *Saratoga* and brought into Liverpool, might protest that he was 'a prisoner of America' who had 'taken the Oath of Fidelity not to lift Arms against my Country'; in the eyes of the Home Government he and his fellows were rebels and pirates and their legal standing was that of traitor to the King. Such a ruling might conjure up the statute of 25 Ed. III. 1352 and the firing squad, but in fact nothing of the kind ever appears to have been contemplated. Mrs Anderson, in her recent admirable paper, suggests various reasons, both practical and humanitarian, for the tolerance and good sense which characterized the attitude of the authorities towards the prisoners, and certainly there is nothing either recriminatory or vindictive in the correspondence which passed between the Lords of the Admiralty and the Commissioners for Sick and Wounded who were responsible for them.[1]

The legal position of the prisoners was defined by the Acts of 1776 and 1777, but their local interpretation was never quite free from doubt. Binstead, the agent at Portsmouth, delayed either committing or receiving prisoners in July 1777 until he had obtained an explanation of certain clauses from the Solicitor General and agreed the manner in which they were to be committed; a few weeks later the agent at Forton Prison was at odds with Sir Thomas Pye, the Commander-in-Chief at Portsmouth, over the latter's suggestion that he should receive prisoners without their being formally committed; and as late as 1780 it was still necessary for the Commissioners to write to the Admiralty concerning eight Americans aboard a tender in the Thames desiring that 'as it will be proper to have them committed to prison under the Act of Parliament respecting such persons by a Magistrate, that the Solicitor of the Admiralty may be directed to do what is proper in the matter'. Americans were generally committed

1 This paper is based upon the original letters contained in two volumes in their contemporary binding dealing exclusively with American Prisoners, from the Lords of the Admiralty to the Commissioners for Sick and Wounded, arranged in chronological order. Volume 1777–80 is referred to as N.M.M./Adm./M/404. Volume 1780–83 is referred to as N.M.M./Adm./M/405.

to the special prisons set up for the reception of prisoners of war, but the mistakes of the magistrates, confused by the situation, were not always rectified; in November 1780 eight Americans were committed to the Wood Street Comptor, and although they petitioned to be treated as their fellows it was held that as they had been committed by the Court of Sessions of Admiralty they could not be sent to any other prison; and when Sir John Fielding, a not unlearned magistrate, found two escaped prisoners up before him in December 1778, brought by a corporal of the Buckinghamshire Militia from Brentford, he confessed himself at a loss and sought the advice of the Earl of Suffolk: 'I have sent them into custody to Tothill Fields Bridewell, until I am honoured with your Lordships direction how to Act. Perhaps the best way would be to send them back to the Prison from whence they escaped, unless some proper Committment be made to detain them here.' The Press Gang, never very particular, found it equally difficult to distinguish between rebel and subject, and many Americans escaped from prison only to fall into their clutches, though where attention could be drawn in time to their plight they were delivered back to prison.[1] In July 1780 the Admiralty directed their solicitor to take counsel's opinion in the case of two Americans taken prisoner on a French privateer; the barrister held that they would have to show that they had been involuntarily held on board, and the Commissioners directed that they should be committed before a magistrate.

Committed to prison by due process of the law the American prisoners were held in various institutions throughout the country, Forton and Mill at Plymouth and Portsmouth, Edinburgh, Kinsale, Shrewsbury, Bristol and Pembroke; bearing in mind conditions prevailing in the eighteenth century they were well treated. Both Forton and Mill prisons were properly established with a paid staff including the keeper at £150 p.a., his clerk at £50 p.a., three turnkeys at £40 p.a. each, a steward at £25 p.a., a cook at £20 p.a., a labourer at 5*s*. 0*d*. a week, and a surgeon at 5*s*. 0*d*. a day: the cook, labourer and steward to have their keep in addition;[2] to this was added later a dispenser to prepare and issue medicines and additional turnkeys when the entry of France, Spain and Holland into the war brought continental prisoners to swell the prisons. The keepers of the prisons were direct appointments made by the Admiralty. One of the more objectionable features of English prison life in the eighteenth century was the practice of farming out the job of gaoler to the exploitation of the prisoners, and these prisons were thus in this respect a great advance on the

1 The crews of trading vessels when captured were impressed into the Royal Navy; master and passengers released.

2 N.M.M./Adm./M/404, 19 April 1777.

civil establishments around them. This is not to say that the gaolers were without fault; complaints were made in 1777 and 1781, for instance, that the keeper was watering the beer, feeding his pigs on the prisoners' food, and condoning brutalities, but the authorities ordered immediate investigations into these allegations and sought the recommendations of the Commissioners on how to put matters right. From time to time the Americans complained that they were not served out with the same quantity of bread as the European prisoners and that they were without adequate clothing, and again immediate investigations were ordered resulting in the increased ration of food and a supply of necessary clothing. Food for the prisoners was at first based on the rations agreed for the rebels of 1745; this, amounting to 1 lb. of wheaten bread, ½ lb. of beef and ¼ oz. of cheese a day was held to be scanty, and the Admiralty approved a modified version of the diet supplied during the past French war, that is, a daily ration of a quart of beer and 1 lb. of bread, ¾ lb. of beef for six days with 4 oz. of butter and 6 oz. cheese on Saturdays and ½ pint of pease every other day.[1] The Government supplied clothing and this was supplemented by garments bought by private subscriptions raised by English sympathizers;[2] at first the authorities forbade shoes and stockings provided in this way to be supplied to the prisoners, but a week later reversed their decision. English sympathy was something to be reckoned with: there was a Committee for American Prisoners which took up individual cases,[3] and it is probable that the orders to the prison keepers to report deaths and institute coroners' inquests was influenced by the knowledge that a barrister had received 'orders' (from whom it is not clear) to indict a keeper for murder should any prisoner die in the confining hold,[4] though this was also in character with the meticulously correct legal attitude adopted by the authorities. Reasonable attention was paid to the health of the prisoners and the surgeons made daily inspection. In December 1777 the Admiralty approved an estimate for £98 for the erection of a covered way at Forton where the prisoners could exercise in bad weather; when smallpox broke out in Mill Prison the surgeon was authorized to innoculate those willing; and a separate apartment was fitted up for the care of an insane Frenchman to be cared for apart from his fellows to whom he was becoming troublesome. Letters were intercepted but if innocuous allowed to proceed to the prisoners, access to whom was also allowed, provided the visitors were never left alone with them; a note

1 N.M.M./Adm./M/404, 30 April 1777.

2 An American agent also visited the prisons and claimed to have authority from Congress to supply food and clothing and also glaze windows. N.M.M./Adm./F.P./21, 2 January 1778.

3 N.M.M./Adm./M/404, 23 November 1780.

4 N.M.M./Adm./F.P./20, 30 December 1777. In fact no prisoner had ever died in the hold nor was any likely to.

unreasonable injunction to which was also added the edict that no letters from Dr Franklin or any other agent were to be read to the prisoners without the Commissioners' permission first being sought.[1] The common complaint of the gaolers against their charges was that they were more troublesome and tiresome than any others with whom they had had to deal, but in spite of this, cases of close confinement or shackling were infrequent and, in the case of the latter punishment, often carried out at the request of the prisoners themselves; a complaint was made to Dr Farquarson on his visitation of Mill Prison in June 1778, that one of the prisoners was threatening his fellows with a knife and he was accordingly handcuffed, and in February 1779 on hearing of bullying and intimidation the Admiralty authorized the ringleaders to be put in irons. That a reasonably good relationship existed between the prisoners and their keepers may be fairly deduced from the correspondence which passed between the Admiralty and the Commissioners on the disposal of money and property left behind in prison by escaping prisoners: 'several American Prisoners . . . had Monies in the hands of your Agents and Effects in the Prisons, and one of them had left a Sum of Money in the hands of your Agent at Plymouth and desired it might be paid to another Prisoner to whom he gave an Order to receive it'.[2] The lot of Americans in British hands may be held to have been favourable compared with the state of some British and Loyalists who fell into American hands and were committed by them to French prisons: the master and crew of the *Drake* taken by the *War Ranger* in May 1778 and brought into Brest contrived to get a complaint through to England in September of the following year setting out how they were 'Reachedly used. Paul Jones kept the greater part of the Prisoners in Irons, a long time after his arrival in Brest Waters where his safety could not be in Danger, consequently tyrannick usage'; and throughout 1781 and 1782 the authorities were exercised with the case of Captain James Parker and his party, Loyalists of Virginia who were captured and carried off to St Malo where they were treated 'more like Criminals than prisoners of war' at the instigation, so it was claimed, of Congress which also was contriving that they should remain unexchanged for the duration of the war. The prospect of long periods of imprisonment was not one that haunted Americans in Britain, although they were not as a rule allowed freedom on parole;[3] they had the choice of escape, exchange, or resuming their old allegiance and

1 N.M.M./Adm./M/404, 22 October 1778.

2 N.M.M./Adm./M/404, 9 June 1779.

3 *Mariner's Mirror*, Vol. XL–XLI, p. 239. There were exceptions: four American prisoners were admitted to parole, which they broke in 1781; and Sir James Jay, a New York Senator, who was to be exchanged for Captain Henry Dundas the nephew of the Scottish Lord advocate in 1782, was held on parole in London.

joining the forces of the Crown, and few difficulties attended any of these ways to liberty.

British prisons did little more than house the prisoners whose detention depended upon the turnkeys and the military guard which was always inadequate for the purpose; the turnkeys were often found conniving at escapes both for bribes and also to obtain the £5 reward paid for recapture, while the soldiers were half-hearted in their job, resenting the cheeseparing attitude of the authorities who grudged them their proper supply of coals and candles. The prisoners disappeared singly and in large bands, breaking through walls, digging tunnels and even opening the main gates with abstracted keys and walking out; they were located in such places as Bell Wharf, Ratcliffe Highway and Deal where they could negotiate for boats, and the country without an official police force could not hope to recapture many. Elisha Henman described his method of escape: '. . . one Richard Coffin who formerly lived at a place called Nantucket in America, but now residing at No. 118 in the Minories had advanced him Money and procured him a suit of black Cloathes to appear in the character of a Clergyman . . he would never mind being a prisoner in England for there were Friends enough always to assist him to escape';[1] and equal confidence is disclosed in the letter intercepted at Kinsale in which Jacob Whipple having effected his escape instructed his son how to follow his example.[2]

Others were content to await their release by due process of exchange. The King's pardon was granted and prisoners set at liberty on the understanding that they would be exchanged for an equal number of Americans; this operated in the case of individuals such as Caleb Foot and Robert Scott and also in large numbers as when 100 on each side were exchanged in June 1779, conveyed in English transports, through Franklin and his agent at Nantes. The principle upon which the exchange was effected was that of 'man for man in Europe'[3] and from this, until the closing stages of the war, no deviation was permitted although many attempts were made to drive individual bargains and arrange exchanges with prisoners in America. The petition of Charles Moulton, Master of the *Truelove* and her crew taken in American waters in February 1777 and released on the understanding that an equal number of Americans would be released in England, was rejected by the Admiralty, who were just as adamant over the proposed exchange of prisoners brought over from Boston by an American ship under flag of truce in December 1779. Exceptions such as the agreed exchange of Captain Dillon and seven of the crew of the *Mercury* for eight Americans in August 1781, and the fact that, as Franklin pointed out, there were not

1 N.M.M./Adm./M/405, 17 October 1781. 2 N.M.M./Adm./M/405, 21 February 1782.
3 N.M.M./Adm./M/404, 5 August 1780.

sufficient British retained in continental ports to exchange equally with their opposite numbers in Britain, led on to a much wider principle of exchange. In October 1781 permission was given for the exchange of fifty-three American prisoners with Captain Jackson and his crew of the *Snake*: 'which exchange has been deferred that it might be known whether the captain of the American privateer who took them chose to have Prisoners released in England or North America'; and in May 1782 directions were issued by Lord Shelburne for the conveyance in transport ships of American prisoners in numbers to North America, to be exchanged there for British prisoners held by the American army, the ships to proceed to the Delaware, the Chesapeake and to Boston according to the ultimate destination of the repatriated men.

Civil wars are largely conducted by a minority of convinced men by whose oratory and coercion the main bodies of combatants are stirred to and maintained in action, and it is not surprising to find many of the Americans open to persuasion to join the British forces and willing to bargain their services for the King's pardon and liberty. As they had been committed to prison by the proper procedure of the law so their pardon and release followed a strict and uniform pattern from which it was not permitted to depart. Each individual prisoner was specifically mentioned and given pardon on condition of his entering the King's service. On 30 September 1778 the first pardons arrived at Forton and Mill Prisons for the release of thirty-three prisoners on condition of their entering and continuing in the Royal Navy and thereafter there came a steady stream, singly and in larger numbers: twenty from Forton in December 1778, ten from Mill in May 1781, and so on. The usual stipulation was service in the Royal Navy, but there appear a number of exceptions to this. In June 1780 a prisoner who expressed his wish to enter the 4th Regiment of Foot was allowed to do so, while another was released to return to North America 'there to serve His Majesty'.[1] Two Indians, taken on an American privateer, were set free in November 1778 in recognition of their efforts in saving the merchant ship *Juno* when she sprang a leak; Shubal Clark was released from Forton in March 1782 to join the Southern Whale Fishery fleet with which he was well acquainted and which needed experienced men; nine Americans held at Kinsale were given permission in November 1781 to enlist in the Corps of Marines; and in January 1782 the Admiralty wrote for a list of those who had petitioned to be allowed to join the East India Company's ships then lying at Portsmouth *en route* for the East, so that the usual form of pardon might be obtained to enable them to do so. Formalities

1 N.M.M./Adm./M/404, 22 June 1780.

loosened up towards the end of the war: in June 1781, on the representation of Sir Thomas Pye, it was agreed that Americans should be permitted to go aboard the ships of the Royal Navy forthwith without waiting first for the arrival of the royal pardon; and the somewhat naïve offer made by three Americans held at Deal to serve on the *Merlin* on the understanding that they would be allowed to go home at the end of the war was accepted in October 1781.

Some innocent parties found themselves in prisons, victims of the confusion unavoidable in times of civil strife. The Commissioners forwarded to the Admiralty several petitions in November 1777 from prisoners representing themselves as loyal seamen taken prisoner by American privateers and lodged in Mill Prison when the privateers were in their turn captured by the British. These were dismissed by the Admiralty who held that they had evidently been unable to convince the magistrates by whom they had been committed; but other cases were accepted, such as that of William Richardson and Dr Hindman who were captured in November 1780 while on their way from Maryland to France on private business and who were let out on parole and subsequently released in March 1781.

The domestic nature of the war is evident in all the dealings between the captors and the captured. There is almost a feudal feeling in the petition addressed by one prisoner to the Duke of Richmond in April 1782 describing himself as 'a Tenant that lived on the Estate of your Brother in Law the Rt. Honble Thomas Connelly Esqr and had the honor of voting for your Nephew the Marquis of Kildare', and obviously finding it perfectly natural to ask for 'Friendly Assistance' to get back to his wife and family in virtue of this bond. The Duke sent this to the Admiralty, and interested himself in other cases: the letter which he wrote to the American Captain Cunningham in Forton Prison in April 1781 was first intercepted and then allowed to go on its way. The petition of Thomas Green sent to the Admiralty in July 1781 probably epitomizes the attitude of the ordinary man caught up in the trammels of internecine war:

> The Petition of Thomas Green a native of North Carolina in North America Humbly Sheweth
>
> That in order to avoid the inconveniences of the unhappy War at present subsisting between Great Britain and America, and to endeavour to sell a small quantity of Tobacco to advantage I took a passage to St. Eustatia in a small Merchant Vessel thinking that the seat of War might be removed from the above Province before my return.
>
> That on my arrival at St. Eustatia I fell into Admiral Rodneys hands and was sent to Great Britain in the *Venus* Frigate and now remain on board His Majestys Ship *Dunkirk*.
>
> That I have undergone an Examination before one of His Majestys Commissioners of the Peace here who informed me that I should be sent to Prison.
>
> That this is the first time I ever ventured to Sea and that as it is my earnest desire to remain Neutre in the present most unhappy Contest I hope your Lordships may be induced to consider me as an inoffensive Person and Order that I may be set at liberty.

NELSON AT SANTA CRUZ

By J. D. Spinney

IT must be admitted that the lure of Spanish gold best explains how the enterprise against Tenerife began. After the battle of Cape St Vincent it was impossible for the victors to rest on their laurels. The English fleet rode triumphant before Cadiz but nothing now could be expected from the Spaniards there, and the minds of many (with traditions of most respectable antiquity behind them), turned towards certain rich 'treasure ships' from the Indies, long expected at Cadiz itself, but now believed to have sought safety at Santa Cruz. Correspondence among senior officers shows how keen was their interest in these fabulous vessels. On 4 April 1797 Sir Isaac Coffin was writing explosively to Rear-Admiral Nelson about their non-appearance;[1] on the 12th we find Nelson examining the prospects of an attack on Santa Cruz, with a cheerful digression on the happy effect six or seven million pounds sterling would have 'if thrown into circulation in England'; and on the following day Collingwood was writing to Nelson on the same fascinating subject.[2] With so many castles rising in the air the first step was to verify the reports, and so two frigates, the *Terpsichore* (32), Captain Richard Bowen (of whom more later), and *Dido* (28), were sent to reconnoitre the Bay of Santa Cruz.

The reports were true. Two valuable ships, the *San José* from Manilla and the *Príncipe Fernando* from Mauritius had indeed arrived at Tenerife on 23 January.[3] Both belonged to the Royal Company of the Philippines and had been bound for Cadiz when news of the English blockade decided their captains to seek safety under the guns of Santa Cruz. But here their wisdom ended. Disregarding the advice of those on shore they would not discharge their cargoes but lay in the outer roadstead; and, to tempt Fortune further, they did not even house their topmasts or unbend their sails. So they were lying on the night of 17/18 April when the *Terpsichore* and *Dido* arrived. Scarcely able to believe their good luck the English frigates swooped down on the anchorage and cut out the *Príncipe Fernando*.

1 'Curse the Viceroy of Mexico for a fool in not coming forward.'

2 '...when I heard the Spanish American convoy was arrived at Tenerife I thought it a probable thing that the Admiral would make a detachment to that quarter—to try how far they were vulnerable there—and if he did who could he send but one whose name is poison to a Spaniard?'

3 It seems that the *San José* was also known as the *Principe de Asturias*, the *Princesa de Asturias*, or simply as the *Princesa*. She had a crew of 108. The *Principe Fernando* was a smaller ship with a crew of 42.

The circumstances deserve to be recorded because if *both* Spaniards had been taken (as they should have been), Nelson might never have come to Tenerife at all. The *Terpsichore* was the senior ship, and her boats went for the Spaniard closest inshore which was the *Fernando*, and took her. The *Dido's* people were about to board the *San José* when her formidable size suggested to someone that she might be no merchantman but an old Spanish frigate rumoured to be at Santa Cruz. So they sheered off hastily and went to help the boats of the *Terpsichore* towing out the *Fernando*. This ship, laden with coffee, pepper and muslin, was a valuable prize worth £30,000. But what was this compared with the great ship from Manilla, worth, it was believed, ten times as much, which they had let slip through their fingers? The thought of what had been missed must have been in the minds of everyone from the Commander-in-Chief downwards.

And so it is not surprising that off Cadiz plans for the enterprise went forward. The general idea was to seize the town of Santa Cruz by a sudden assault from the sea and lay a heavy contribution on its inhabitants if the whole cargo of the *San José*, with any treasure belonging to the King of Spain, was not given up. There would be no help from the Army, but this would not matter if the Rear-Admiral's force was sufficiently powerful: and, by now, such was the enthusiasm of the Commander-in-Chief, it promised to be very powerful indeed. On 6 June he wrote to Nelson: 'If I obtain a reinforcement of four ships of the line...as I have every reason to believe I shall...I will detach you. *Terpsichore* Bowen shall also be of the party, but I rely chiefly on the local knowledge of Captain Thompson of the *Leander*. Turn this over in your mind for the moment the expected ships arrive I will dash you off.'

But while his Commander-in-Chief was waxing enthusiastic, the Rear-Admiral, turning it over in his mind, sounded a note of caution. Nine hundred miles away English frigates were keeping the Spanish islands in a state of continuous alarm, and he was concerned about the Spanish reaction to these affronts. 'I hope', he wrote to Jervis on 18 June, 'your design about Tenerife will not get wind by making injuries at the present moment'. This warning followed the return of that exuberant officer Captain Ben Hallowell from an exploit of his own in the Bay of Santa Cruz which, as it has some bearing on our story, must be briefly described.

On 26 May, with the *Lively* (32) and *Minerve* (38), he had appeared off the town in daylight. The frigates kept out of range and Hallowell sent a boat in under a flag of truce with a letter for the Governor. The latter, suspecting, probably correctly, that the communication was only a pretext for examining the port, sent out a launch under Don Juan Creagh who spoke English, who received the letter not far from the mole. While awaiting the reply

the English boat's crew scanned the anchorage and the defences. The great ship from Manilla was now as close under the shore guns as the Spaniards could put her, but a vessel which had arrived a few hours before them looked suspiciously like a French National corvette, and any uncertainty about her identity was rudely dispelled by the stream of abuse hurled across the water when one of her boats approached. In due course the Governor's

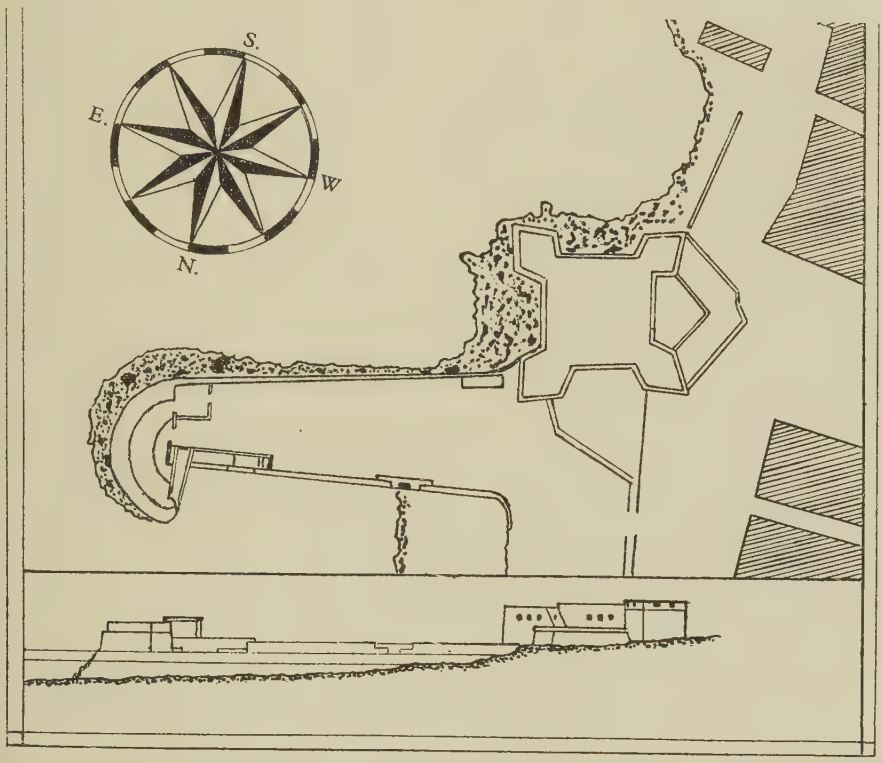


Fig. 1. The mole and castillo de San Cristobal. (Drawn from 18th Century plans in Cano.)

reply came off (the subject of the letters was exchange of prisoners), and Hallowell withdrew. But the rencontre with the insulting Frenchmen was not forgotten. In the small hours of the 29th the English frigates returned to the anchorage under cover of darkness and cut out the corvette with 113 of her crew. She was *la Mutine*, an interesting and important capture.[1]

1 *La Mutine* was commanded by Captain Xavier Paumier, and had a crew of 135. She carried twelve 6-pounders and two 36-pounder carronades. She was bound from Brest for the Eastern Seas with an enemy agent on board to make trouble in India, and had put in to Santa Cruz for supplies and water. Many of the agent's papers will be found in Adm. 1/396. The ship's inventory and stores list is in Adm. 7/358.

On 4 June Hallowell was back in the bay with plenty of prisoners to exchange, and then for the next six weeks (such was the effect of Nelson's hint to the Commander-in-Chief) the port of Santa Cruz was not disturbed by the English.

It is now time to consider the formidable task before the Rear-Admiral: formidable it was, for the defensive front at Santa Cruz was very strong indeed. From the barranco Hondo in the south-west to the valle de San Andrés in the north-east, a distance of nearly six miles, there were sixteen strong-points, all facing the sea, and linked together by a rough wall which followed the line of the beach. They were most substantially constructed, the commonest type taking the form of a half-moon shaped platform with embrasures in the parapet for cannon, and a small barrack behind or beneath. Such were the Paso Alto, Santiago and San Pedro batteries. Others were more elaborate. The torre de San Andrés resembled a martello tower, the castillo de San Juan had tower, moat, and draw-bridge; while the castillo de San Cristobal, immediately behind the mole and in front of the town, was more complicated and more formidable still. Nearly 100 guns commanded the waters of the bay, all mounted behind walls of stone.[1]

Behind all this lay the town, open and exposed, but Nature aided the defences to the eastward with the Altura heights. These formed a sharp ridge running inland from immediately behind the Paso Alto battery, and play an important part in our story. West of the town were fewer batteries and no heights,[2] but this approach was believed to offer two serious disadvantages from the English point of view—an exposed anchorage and bad holding ground.

To the Rear-Admiral planning his attack the nature of these defences if not their quality, must have been fairly clear.[3] His intelligence mentioned in particular a 'Fort in the N.E. of 26 guns'. This was the Paso Alto battery, already referred to, which was just a mile along the shore from the town, and the most conspicuous of the defences when viewed from the sea, although it had only eight guns and not twenty-six. After toying with the idea of a flank approach over the Altura heights his final intention was a frontal attack just within this battery—with the advantage

1 For most of the details of these batteries I am indebted to Colonel Cano's work.

2 The sketch Nelson made for Lord Keith many months later is inaccurate here.

3 The reader is warned against a curious sketch of Santa Cruz, said to be from Nelson's journal, reproduced in Vol. 2 of the Letters and Despatches, in Clarke and M'Arthur, and in Mahan's biography. Comparison with the original (B.M. Addl: M/S. 34, 906), will reveal the astonishing liberties taken by the nineteenth-century engraver. I am indebted to Professor Christopher Lloyd for drawing my attention to Nelson's other sketch of Santa Cruz, in Vol of the *Keith Papers*, N.R.S.

of surprise. A rapid disembarkation at dawn, and it would be an odd thing if 1000 active seamen and marines could not be behind the defences before the sleepy Spaniards realized their danger. This was the plan finally chosen, which, but for interference by the elements, might well have succeeded. As for the defenders, he may well have underestimated their quality. For they were neither so unprepared nor so unwarlike as might have been supposed.

The Commandant General of the Canaries, Don Antonio Gutierrez, was an active and experienced soldier. Report describes him as an upright man of few words, dry and hard, and the stern, austere features which look out from his portraits confirm this. He had seen service against the English in the American war and had been badly wounded in the Spanish expedition to Algiers. As a Brigadier he had held a high appointment at Minorca, he was sent to the Canaries in 1791, and was promoted Lieutenant-General two years later. At the time of the English attack he was sixty-eight years of age. To man his defences he had the merest handful of regular troops, fewer than a hundred, and five regiments of local militia, the latter involving him in all the difficulties over equipment, training and weapons, which are peculiar to such forces everywhere. But the English attacks in the bay of Santa Cruz had greatly stimulated patriotic ardour. Gutierrez concentrated as many of the militia as he could close to the port and organized a system of look-outs and communications. It seems that the defenders of Tenerife, though nearly all civilians, were most of them ardent and courageous, while the leadership and organization were good.

On 15 July the Rear-Admiral sailed from Cadiz with three 74's, the *Culloden*, *Zealous* and *Theseus* (flag), three frigates, the *Emerald*, *Seahorse* and *Terpsichore*, the *Fox* (cutter), and a mortar-boat recently taken from the Spaniards.[1] For six days, in the pleasant summer weather, they rolled and dipped to the south-westward with the wind behind them.[2] With action ahead (and perhaps prize-money as well), spirits must have been high. Every day the hands were exercised at the great guns and small arms. Carpenters and armourers were hard at work making scaling-ladders for the escalade, and iron ramrods which would not break in the excitement of action. As for the Rear-Admiral, he showed from the first his intention to

1 Cano says she had been Gunboat no. 14 from Mazaredo's Cadiz flotilla: probably she was the one captured on 3 July. Nelson did not think much of her. Writing to Jervis on the 10th he said: 'The mortar-vessel shall be named as you direct the *Rayo*, as a Rayo is a fireboat, but hardly worthy of a name. However, she shall have it.' In contemporary references she is nearly always 'the mortar-boat', and so she will be in this narrative.

2 The best day's run seems to have been the 18th with the wind N.E. The *Culloden*'s reckoning was 169 miles, and that of the *Zealous* 144. In the next twenty-four hours, with the same wind, the *Culloden* reckoned 148 miles and the *Zealous* 157.

work *with* his captains (who were most of them his old friends in any case), and during the passage the signal was made three times for them to repair on board the flag-ship.[1] During the last night at sea before the island was sighted, Bowen of the *Terpsichore* was ordered to go ahead and carry a light.

At 5.15 p.m. on Thursday, 20 July, the northern tip of Tenerife was sighted by the *Culloden* bearing W. $\frac{3}{4}$° S. ten or eleven leagues,[2] and on this day Nelson wrote out the orders for Troubridge her captain who was to command the landing. He was instructed to proceed with the frigates 'as near to Santa Cruz as possible without endangering your being perceived. Embark as many men as your boats will carry and force your landing in the north-east part of the bay of Santa Cruz, near a large battery. . . .'

Nine o'clock the following morning (21 July) saw the squadron lying to, while the landing parties from the 74's were transferred to the frigates. The *Seahorse* took the men from the *Theseus*, and with them went Captain Miller and his 1st, 2nd, 4th and 6th Lieutenant, so that for the next thirty-six hours the flag-ship carried only two commissioned officers besides the Rear-Admiral; the *Terpsichore* took 150 seamen from the *Culloden*, with Captain Troubridge, three of his lieutenants, and the marines; and the *Emerald* took 270 men all told from the *Zealous*. The transfer, with all the necessary impedimenta, probably took some hours, and all the while the misty outlines of Tenerife were faintly visible on the western horizon. At last, at 4 p.m., the three frigates, their decks crowded with men and towing a miscellaneous assortment of boats, parted company and bore down on Tenerife. The 74's gave them three hours start and then, at 7 p.m., they followed.

Everything would depend on the element of surprise. A thousand men were to be thrown ashore at dawn, somewhere between the Paso Alto and the town. Given this advantage the prospects of success were good and the three frigates, with a fair wind from the north-north-east, made excellent progress. At eleven they rounded the north-eastern tip of the island, *Terpsichore* leading. One of the barges towed by the *Seahorse* filled and had to be cut adrift, but this seems to have been the only mishap. At about 1 a.m. (22 July) they brought to 'three or four miles east of the town'.[3] The rest of the boats were hoisted out and the landing parties sent away. So far everything had gone according to plan and the timing had been perfect.

1 17, 18 and 20 July. Captain Waller of the *Emerald*, in his journal for the 17th, notes the intention to land 'just within the eastern battery'.

2 Land was sighted by all the other ships during the next forty-five minutes, their estimates of the distance varying from 7 or 8 leagues to 10 or 12.

3 Captain Waller's journal.

Dawn came three hours later, and as the darkness lifted anxious eyes from the frigates surveyed the scene. Three or four miles to the westward lay Santa Cruz, its churches and coloured houses rising behind the mole: and between the town and the ships were the boats, still struggling shoreward but only just approaching the Paso Alto. They had not progressed more than two miles since casting off. Soon there were signs that the Spaniards had seen them too. Three alarm guns were fired in the town, whereupon the boats gave up the struggle and turned back. Presently they were alongside once more, exhausted and exasperated, with reports of a strong current inshore which had defeated them.[1]

The affair had taken an unexpected turn and Troubridge seems to have been perplexed. With the Spaniards on the alert he would not take the responsibility of throwing the men ashore; but the flag-ship was now in sight with the other 74's, and at six he went off to her with Bowen and Captain Oldfield of the Marines. The *Theseus* was still too far away for Nelson to see much of the shore situation for himself, but his visitors were hopeful that the heights behind the battery might be occupied as a preliminary to storming it. Seen from the sea the slope appeared deceptively smooth and easy, and the crest undefended. Nelson gave his consent for the attempt to be made and agreed to bring the 74's in to cannonade from the seaward. At 8 the *Theseus* made the signal for all boats manned and armed, and between 10 and 10.30 the landing parties left the frigates for the second time. This time they made for the black pebble beach opposite the barranco Seco and landed unopposed. The frigates worked further inshore and anchored about three or four cables' distance from the beach, opposite the barranco del Bufadero and just out of range of the battery. But the light airs under the land prevented the 74's from closing in to assist.

Let us now see what the Spaniards were doing. At 1.30 that morning the look-out on Anaga Point saw some ships which he suspected were hostile. Anaga Point is on the extreme eastern tip of the island so these ships must have been the 74's. He sent off a report, but as it was not received until 7.30, by which time the frigates were in plain view from Santa Cruz, it cannot have affected the issue. Until 10 Gutierrez was uncertain where his enemy might strike, but as soon as a landing was reported at the barranco Seco he did two things. First he sent off a party

1 The Canary Current usually sets to the southward off the east coast of Tenerife. According to the Admiralty Sailing Directions the average rate is about three-quarters of a knot; it is at its strongest between May and October, but even then seldom exceeds 1 knot. From the conditions met during the hours of the attempted landing it is clear that an unusually strong south to south-east set must have been experienced, carrying the boats away from the shore. When Nelson anchored the squadron two days later for the second assault he came much closer inshore, and to the *north*-east of the town.

under Don Juan Creagh to the town of Laguna five miles inland to call out the militia and prepare to oppose an advance up the valley. Secondly, he sent as many men as were available to reinforce the defences on the Altura. And as these defences were the key to the situation a short description of them is necessary.

Immediately above the Paso Alto and the coast road the spur of rock rose very steeply indeed to a height of about 470 feet[1] where a grassy platform had been made. Here, behind a rough stone parapet, the Spaniards had mounted some light artillery, swivel guns and mortars which commanded to seaward, and both sides of the spur; and behind this platform the knife-like ridge, topped in places with a low, rough wall, rose even higher as it led inland. To the east, that is the side fronting the English attack, there was a regular slope of about 45 degrees down to the barranco Seco: it afforded no cover and offered to the climber a rough, rocky surface covered with an uninviting and prickly scrub. To the west, that is the side facing Santa Cruz, the surface was the same and the slope slightly steeper: but on this side a narrow track wound tortuously up to the summit, and then led along behind the crest and down to the battery platform.

Up this track then raced the first party of defenders, among them forty seamen from the captured French corvette, burning for revenge. Those not needed in the battery spread along behind the crest with their muskets, and long before Troubridge could dispose his divisions for an advance up the slope there were five hundred armed and blood-thirsty enemies at the top making any advance impossible.

Troubridge was the last man to accept defeat but even he must have recognized it here. His men were already in poor shape. Most of them had embarked in the frigates twenty-four hours before, and had passed the small hours urging their heavy boats against the current. They had returned on board at dawn, only to re-embark two hours later for the impossible task now facing them. By the time they had dragged their brass four-pounder to the top of the Jurada ridge, which was where their commander wanted it, and spread themselves along the heights there, few can have been in any condition to fight; nor was the gallant Troubridge himself at his best if a note in Captain Waller's journal is to be believed.[2] Firing went on in a desultory manner all the afternoon, and the mortar-boat moved in to throw several shells at the fort. But the sun was hot, the Spaniards secure, and the English exhausted. At dusk Troubridge re-embarked his tired and dispirited troops, 'the men being much fatigued and in want of refresh-

1 The second officer of the Norwegian M/V. *Venus* kindly took this height for me with his sextant as his ship lay alongside the modern mole.

2 'I believe Captain Troubridge was taken very ill when (he) arrived at the top.'

ment'[1], and by 10 p.m. all were on board again. A certain amount of powder had been expended and probably a great deal of perspiration and bad language.[2] But it had been a field-day rather than a battle and the only casualty seems to have been the Spanish local commander, the Marquis de la Fuente, who had a bad fall from his horse on the mountain path and was laid up for several days in consequence.

It had all been most unsatisfactory. Troubridge went on board the flagship at 7 next morning (23 July) to report, and at 9 the *Theseus* made the signal for the frigates to weigh and join her. Most of that day the squadron stood off and on while the men returned to their own ships and the boats were hoisted in. The weather was deteriorating. A fresh gale was blowing up from the north-east and for the next twenty-four hours the squadron, under close-reefed topsails, staggered to and fro across a leaden sea flecked with foam.[3] But by noon on the 24th conditions had improved, the *Leander* (50) appeared from the north-east, and between 4 and 6 p.m. all the ships anchored off the barranco del Bufadero, the frigates inside the 30-fathom line, and the battleships just outside it.[4] The Rear-Admiral had decided to renew the assault that very night and in the most daring manner possible, by a frontal attack on the centre. And because this would be extremely hazardous (perhaps also lest there should be any uncertainty or faltering in the leadership), he was going to lead it himself.

It seems a crazy decision. Why, one asks in bewilderment, was he now prepared to tempt Fortune beyond the bounds of reason, common sense, or necessity? Certainly he was a Hero and not to be judged by ordinary standards, but this (the usual explanation), disregards the fact that he was also a very shrewd and experienced master of war. It seems that he had received an encouraging report from an unexpected source. Captain Waller of the *Emerald* learnt about this when, with the other captains of the squadron, he went on board the *Theseus* at noon on the 23rd. In his journal for that day he wrote: 'A German deserter had come in the preceding evening from whose information it was supposed there was yet a hope of getting the town by storm.' We hear a little more about this from Mrs Fremantle who was with her husband in the *Seahorse* and who wrote in her diary: 'A German that was brought off yesterday says the Spaniards have no force, are in the greatest alarm, all crying and trembling, and that nothing could be easier

1 *Culloden*'s log.

2 Also expended were 24 gallons of rum, tactfully accounted for in the *Emerald*'s log as 'lost in the retreat, the people being much fatigued'.

3 The *Culloden*, so often an unlucky ship under Troubridge, had her main-topsail, which was triple-reefed, blown completely out of the bolt ropes.

4 The squadron must have been about four cables' distance from the shore.

than to take the place, only 300 men of regular troops, the rest are peasants who are frightened to death.' This last sounds too good to be true, and it may be that the considerate Fremantle brightened the picture somewhat before passing it on to his wife; it may even be that in this carefree entry we hear an echo of the light-hearted tone deliberately assumed round the dinner table of the *Seahorse* on the night of the attack, to set the lady's mind at rest. But whatever this mysterious German really said, his report may well have decided Nelson to try once more.

The centre of the Spanish defences was the castillo de San Cristobal (generally called in English accounts 'the citadel') which stood four-square before the great plaza of the town. It was massive and old. Its crenellated outer walls rose 30 feet from the ground and it mounted ten cannon. The mole was almost part of it and extended into the sea about 80 yards. It was built of stone, and the tongue of larva rock on which it stood spread away from it to the south and west leaving only the north-eastern side accessible for boats. At the seaward end there was a small battery of 7 cannon.

On this low, stone pier, for it was little more, nearly a thousand seamen and marines were to land; they would spike the guns, storm the San Cristobal (for which purpose they would have plenty of 30–35 ft. scaling ladders), and occupy the plaza. This was certainly the shortest way to the heart of the town, also the most dangerous, and also perhaps the most obvious. At any rate, ever since Troubridge's field-day on the 22nd, the Spaniards had been strengthening their defences here, piercing new embrasures, and mounting more cannon. And when they saw the English squadron anchor on the evening of the 24th all the defenders stood to their arms, sharp-shooters were posted in the houses along the front, and Gutierrez himself went to the San Cristobal.

At 7.30 that evening the mortar-boat began a leisurely and very inaccurate bombardment of the Paso Alto,[1] and as soon as darkness fell the battery retaliated by scouring the landing beach of the barranco Seco with grape. To this noisy but harmless background the landing parties embarked. Six or seven hundred men were to go in the boats of the squadron, and seventy or eighty more in a small Spanish ketch captured by the *Zealous* the day before. Another one hundred and eighty, mostly from the *Theseus* and *Culloden*, were to crowd into the *Fox* (cutter), which would creep in after the others under her sweeps and lie off until the boats of the squadron, having landed the first wave, could return and put her people ashore too. All boats were to assemble round the *Zealous* at 10.30 p.m. By eleven nearly a thousand men with muskets, bayonets, ammunition and equipment,

1 According to a Spanish account she threw forty-three shells between 7.30 and 2 a.m., of which only one fell within the defences.

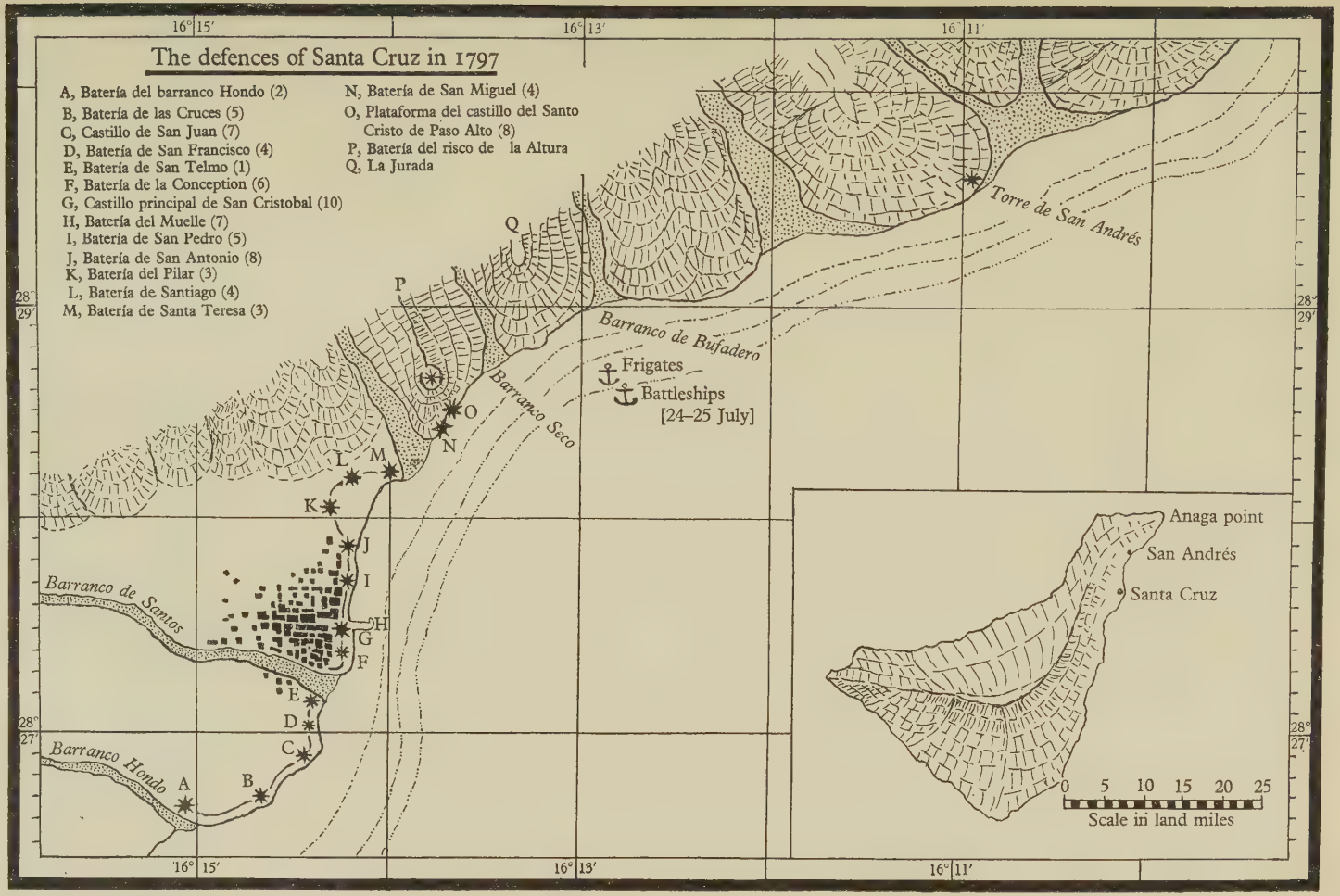

The defences of Santa Cruz in 1797
A, Batería del barranco Hondo (2)
B, Batería de las Cruces (5)
C, Castillo de San Juan (7)
D, Batería de San Francisco (4)
E, Batería de San Telmo (1)
F, Batería de la Conception (6)
G, Castillo principal de San Cristobal (10)
H, Batería del Muelle (7)
I, Batería de San Pedro (5)
J, Batería de San Antonio (8)
K, Batería del Pilar (3)
L, Batería de Santiago (4)
M, Batería de Santa Teresa (3)
N, Batería de San Miguel (4)
O, Plataforma del castillo del Santo Cristo de Paso Alto (8)
P, Batería del risco de la Altura
Q, La Jurada
16° 15′
16° 13′
16° 11′
28° 29′
28° 27′
Torre de San Andrés
Barranco de Bufadero
Barranco Seco
Barranco de Santos
Barranco Hondo
Frigates
Battleships
[24–25 July]
Anaga point
San Andrés
Santa Cruz
0 5 10 15 20 25
Scale in land miles

Fig. 2. Admiralty chart no. 1856. Defence details from Cano. Figures in brackets indicate number of guns mounted.

with pistols and cutlasses, axes, pikes, and scaling-ladders, had gone over the side and were bobbing about on the dark, gusty waters.

They proceeded in six divisions. Leading the flotilla was the Rear-Admiral, and with him went Captains Fremantle and Bowen 'to regulate the attack', and the German deserter 'as a guide'.[1] The five other Post-Captains (Troubridge, Waller, Hood, Thompson and Miller), were in the leading boats of their own divisions.[2] The first objective was the mole, and the rallying point the plaza behind the San Cristobal.

The night was overcast, not a star showed, and a keen wind whipped the waters. The mole lay about two miles off and the boats, roped together in their divisions and with muffled oars, proceeded in absolute silence. They had approached within half a gunshot of the mole when vigilant eyes on board the Philippine ship spotted them; and at the same moment someone in the Paso Alto discerned the dark bulk of the captured ketch and sent a warning to the San Antonio battery. At once the alarm bells rang out over the town, and a moment later the whole defensive front from the San Telmo to the Paso Alto burst into flame. The time was 1.30.

At once the order was given for the boats to cast off from each other and make for the mole. It was obeyed, and then the darkness of the night threw everything into confusion. Five boats and five only reached the mole. All the others were swept past it before they realized their mistake. Then they pulled desperately for the beach where the surf was breaking heavily. Some crashed through the breakers on to the rocky shore and landed their crews in scattered groups with arms and equipment soaked. And there were others which played no further part: Troubridge said later that they put back because the surf was so high. Whatever the reason they rejoined their ships at daylight without having landed at all.

The mole was most gallantly carried by the boats that reached it and the guns spiked. But casualties were heavy, and it is easy to understand why. Its whole length was swept by fire from the San Cristobal and from the San Pedro batteries, to which were added the vollies of the marksmen in the houses. Any further advance was beyond the power of the few who had landed. Men were falling fast. Besides the Rear-Admiral, Thompson of

1 'At 11 the boats set off with each ship's boats towing the others, the captains of the different ships leading them, and the Admiral, with the deserter as a guide, leading the whole' (Captain Waller's journal). According to William McPherson, gunner's mate of the *Seahorse*, the landing on the mole was 'conterary to the advise of the guide or pilot' (*M.M.* Vol. 36, p. 210). It looks as if the German deserter had second thoughts about the enterprise when he found himself with the Rear-Admiral in the leading boat.

2 It is interesting to note that Troubridge, after his vexatious experience three days before, took particular pains to ascertain the direction and rate of the current before he went down to his boat.

the *Leander* and Fremantle of the *Seahorse* were wounded, and Bowen of the *Terpsichore* and his first-lieutenant killed. There was no alternative but to withdraw.

Shortly after Nelson was wounded the English force sustained another grievous blow. The *Fox*, with one hundred and eighty men on board, was making her slow progress across the bay. Two of the *Leander*'s boats were towing her, and their course took them across the whole blazing front. A lucky 24-pound shot, said to have come from the Paso Alto, hit her below the waterline. There was a great cry as she went down, and ninety-seven men, including Lieutenant Gibson her captain, were lost. If the boat returning with the wounded Rear-Admiral had not passed the spot a few minutes later the casualties would have been even heavier.

By this time several parties had landed south of the mole. Troubridge charged through the breakers and came ashore, to quote his own words, 'under the enemy's battery close to the southward of the citadel'. (This must have been the batería de la Conception, a low rectangular platform close to the water's edge, mounting six guns.) At the same instant shouts and cries from a few yards along the beach announced the arrival of three or four more boats. Wet figures materialized out of the darkness, among them Waller of the *Emerald*, and the two captains conferred.

The noises from the mole told them roughly where they were, and there could be no question what they ought to do. Leaving the boats, which were stove in and full of water, they marshalled their men, cleared the battery with cold steel,[1] and dived down the nearest alley into the town. For a hundred yards they felt their way uncertainly. The alley narrowed, and suddenly they emerged into a small square.[2] The tower of a great church loomed up before them, and the sound of the firing came from the right. They turned towards the noise, and a few moments later came out into the plaza. Before them was the San Cristobal, and shots from above the gateway told them they had been seen.

Troubridge was awkwardly placed. The walls were unscalable without the ladders, which had been lost. All his powder was wet, and no return could be made to the enemy's fire which increased rapidly. Lieutenant Robinson was wounded, and several others were hit, so he withdrew to the upper end of the plaza where his force established itself in a large warehouse. From here he sent a haughty message to the Commandant-General. Unless the plaza was surrendered at once he would burn the town. Gutierrez, not

1 I think this assumption is justified. Waller says in his journal: 'The enemy's musketry soon gave way, and their men ran from the open batteries shortly after a few of ours had got a footing on shore.'

2 Through the calle de la Caleta and into the plaza de l'Iglesia, with the church of the Conception on the left.

to be bluffed, ordered the envoys, two Spanish gentlemen and an English sergeant, to be detained in the San Cristobal.

Leaving Troubridge and Waller in their warehouse waiting for the sergeant who never returned, we must now consider some of the other invaders. Hood of the *Zealous* and Miller of the *Theseus* came ashore with a number of boats further south still at the barranco de Santos. Here were posted some sixty men of the Havana and Cuba Regiments who were driven back, but only for a while. Spanish reinforcements arrived and the English withdrew into the maze of dark alleys leading towards the plaza. It is probable that they lost their bearings; their enemies were assailing them from every side and claim to have taken thirty prisoners at this time. At last the bewildered column made a stand in the little plaza of Santo Domingo some half mile from where they had come ashore; and here, just before daybreak, the forces of Troubridge and Waller, tired of waiting and perhaps conscious of their own insecurity, came and joined them.

Dawn must have revealed to Troubridge the delicacy of his situation. He had eighty marines, eighty pikemen, and one hundred and eighty small-arms men, besides his three fellow captains. Enemy reinforcements were pouring into the town, and it was clear that the enterprise had failed. Hard by stood the convent of Santo Domingo, a two-story building well suited for defence as it had no ground-floor windows on the street. With some captured Spanish ammunition his men were able to keep the enemy at a distance until they had occupied this strongpoint, and from its upper windows they continued to hold them at bay. But as their reduction could only be a matter of time Troubridge decided to negotiate.

First he sent Miller of the *Theseus* who, with all the elaborate ceremonial of white flag and roll of drums, was led blindfold into the San Cristobal by a Spanish officer of equivalent rank. But when Gutierrez heard a repetition of the threat to burn the town he refused to listen, and Miller returned. Firing continued round the convent, punctuated by English cheers, and for a while the attention of the Spaniards was distracted by what they supposed to be another attack from the sea, but which was probably the sight of some of the boats which had not landed making their way back to the squadron. Then Troubridge tried again, this time through two Dominican friars who were instructed to demand the surrender of all the wealth in the Royal Treasury, and that of the Royal Company of the Philippines, in return for a cessation of hostilities. Naturally Gutierrez refused this too, and the friars were too frightened to return to the convent. Finally Hood of the *Zealous* offered to go and make the best terms he could. With the same ceremonial he was admitted into the San Cristobal where, after one more attempt to save something out of the disaster, he agreed to an honourable

capitulation. The terms, speedily ratified by Troubridge, were announced to the town with drums and trumpets, and the firing ceased. It was not yet seven oclock.[1]

We must now return to the ships in the anchorage. Bad news travels fast, and all night the direst reports had been coming in. At daylight the Paso Alto found their range and five junior officers left temporarily in command[2] were faced with the tricky problem of getting under way short of men, short of boats, and in an almost complete absence of wind. The *Emerald* weighed at 5.30, followed by the *Zealous* and *Seahorse* at 6, but the *Theseus* had to cut her cable. Aided by what boats they had, they edged slowly out from the shore and drifted north-east towards the torre de San Andrés with its six guns, which had not yet fired a shot. One can imagine with what satisfaction the Spanish gunners watched their approach, and they opened fire briskly. Soon after 7 the flag of truce came off from the town, and the *Leander*, which had not yet weighed, remained where she was. But firing continued for a little longer from the San Andrés which scored several hits on the *Culloden*, the *Emerald*, and the mortar-boat. With the last shots from the tower the latter, which had played such an undistinguished part throughout the operation, rolled her mast out; then the messengers sent by Gutierrez came spurring along the coast path and all hostilities ended.

It was 25 July, Saint James's Day. Every window, and the flat roofs of the houses, were crowded with spectators as the weary but indomitable English columns marched down to the mole with all the honours of war; Gutierrez himself watched from the ramparts of the San Cristobal. Unfortunately, somewhere along the route, the Frenchmen from the *Mutine* had stationed themselves under their tricolore. There were jeers and catcalls; English and French glared at each other; for a moment or two an ugly situation threatened, and Captain Hood had to harangue his men in the plainest terms before they would march on. At the mole the dead were identified, the wounded cared for and taken to the Spanish hospital, and (for the Spaniards were chivalrous foes), bread and wine provided by the victors for the hungry English. Indeed Gutierrez invited the English officers to breakfast with him, but they excused themselves; with the wine flowing and the Frenchmen not far off they preferred to stay with their men.

When the time came to embark it was found that there were no boats. Left unguarded during the night, and many of them stove, they had all, on the order of the Captain of the Port, been scuttled eighteen yards down

1 I have taken my account of these negotiations from the Spanish sources. Both Troubridge and Waller say very little about them.

2 On board the *Culloden*, *Emerald*, *Zealous*, *Terpsichore* and *Theseus*.

the beach. A swarm of women and children had descended on them and joyfully battered great holes in them with boulders.[1] So two Spanish brigantines were used, and the business of returning the men took most of the day.

The exchange of courtesies continued until the squadron sailed. Troubridge was ashore again on the 26th with the Rear-Admiral's confirmation of the terms, and his present to the Commandant-General of some English beer and a cheese. On this day the twenty-five English wounded were embarked, and the English officers sat down to dinner with Gutierrez, after which the latter withdrew to write those despatches which Nelson had offered to deliver for him; and at sundown the Bay of Santa Cruz resounded to the saluting guns as the body of Captain Richard Bowen was committed to the deep. Early on the 27th Troubridge was ashore for the last time to make the official farewells, and that afternoon the English squadron, which had come with such high hopes, sailed to rejoin the fleet off Cadiz

Epilogue

The visitor to-day will not see much of eighteenth-century Santa Cruz. A gigantic modern mole, nearly a mile long and still growing, encloses the modern harbour, but its position coincides roughly with the course taken by Nelson's boats on 24–25 July; somewhere in its base, and impossible to locate with certainty, the old mole lies embedded and hidden. The castillo de San Cristobal was demolished in 1928, and only to the westward has much of the old town survived. One may still follow the route taken by Troubridge and Waller down the calle de la Caleta, past the church of the Conception, and into the plaza de l'Iglesia. Here the scene is probably much as it was 150 years ago.

The Santa Cruz museum has nothing to show connected with the attack, but in the church of the Conception are three flags said to have been captured from the English. Two of them are small and very rough representations of the Union Flag—perhaps boat-flags, hastily improvised by the sailmaker—and one has the name *Emerald* painted across it in bold yellow letters.[2] They are in a glass case, not very easy to find, on the wall of a side chapel to the north of the nave. And I believe that in the Army Museum at Madrid is one of Nelson's scaling-ladders, and a small cannon, the latter perhaps salved from the sunken *Fox*.

1 The various ships' logs record the following losses: *Theseus*, launch and cutter; *Culloden*, 28 ft. pinnace and 18 ft. jolly boat; *Zealous*, 28 ft. pinnace (new); *Emerald*, launch, barge, cutter, and jolly boat; *Terpsichore*, launch and large cutter. All the *Leander*'s boats returned. The log of the *Seahorse* is silent on this subject.

2 The writer feels a little sad that this trophy should have come from the *Emerald*. Captain Waller was his great-great-great-grand-father.

Of the old defences, the Paso Alto was restored in 1953 and may now be seen in all its glory. Its eight cannon still command the waters of the bay, and one of them, a handsome bronze 24-pounder, is said (by tradition) to have fired the shot that wounded Nelson. It is named 'el Tigre' and was cast at Seville in 1768. Three other forts, the San Miguel, San Francisco and San Juan, are also to be seen much as they were.

East of the town the Altura heights and the beach of the barranco Seco are just as they appeared when Troubridge and his men landed on 22 July 1797; and one may still climb by the zig-zag mountain path to the ridge, and go down to the grassy platform where the Spanish defenders held up the first attack.

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FRENCH MASTS AND SPARS IN 1780

By R. C. Anderson

THE dimensions of the masts and spars of the French ship *Majestueux* (110), built at Toulon in 1780, and the scraps of information as to her fitting out and first cruise are taken from the first few pages of a small manuscript book given to the first Viscount Melville in 1804 soon after he had become First Lord of the Admiralty. It was accompanied by the following letter from the donor:

My Lord—I have the honor of sending to Your Lordship a Manuscript I found in Seringapatam containing the measurements of the French ship of war the *Majestueux*; I am ignorant whether it can be of any utility or not, but I hope Your Lordship will consider the liberty I take in offering this Manuscript as a token of the Respect and attachment with which I have the honor to be, My Lord, Your Lordship's most obedient Humble servant—J. W. Ogg

24th June 1804—3 Bennett Street, St James's

This is the only part of the book of nautical interest; the remainder is concerned with artillery, fireworks and mechanical devices. The whole is written in French, but the part devoted to the *Majestueux*, though easy enough to read, suggests the result of dictation from a badly written original taken down by someone not over literate and not at all well acquainted with nautical terms in that language.

Similar details for other French ships of this period may be found in Romme's *L'Art de la Mâture* of 1777. As for the *Majestueux*, she became the *Républicain* in 1797 and lasted until 1808, but without taking part in any service of note.

The King's ship *Le Majestueux* was built at Toulon in the year 1780 in the dock and had to be brought out before the third battery was finished, because the keel would have touched the ground.

The ship is one of 100 guns.

Dimensions of the ship:

Length treading the ground	168 ft.[1]
Rake of the stem	17 ft.
Rake of the sternpost	2 ft.
Length from stem to sternpost at the height of the wing transom	187 ft.
Greatest width at the mid-section	50 ft.
Length of the wing transom	36 ft.
Depth measured on the keel	21 ft.

1 The French foot measured 325 mm. as compared with an English foot of 305 mm.

Dimensions of the masts:

	Length (feet and inches)	Diameter (inches and lines)	Masthead (feet)
Main mast	117–6	39–2	14
Fore mast	110	36–8	13
Mizzen mast	82	25–4	10
Bowsprit	72–6	38	9
Main topmast	71	22–6	6
Fore topmast	64–6	20–3	4
Mizzen topmast	46–6	15	3
Main topgallant	51	12	8
Fore topgallant	41–6	11–9	6
Mizzen topgallant	42	8	2
Jib-boom	53	15–6	
Ensign staff	50	10	

Dimensions of the yards:

	Length (feet and inches)	Diameter (inches and lines)	Yard-arm (feet)[1]
Main yard	110	27–6	10
Fore yard	96	24–3[2]	4
Mizzen yard	98	19	2
Spritsail yard	71	15–9	4
Main topsail	84	17–8	17
Fore topsail	76	16	8
Crojack yard	76	15–2	6
Mizzen topsail	60	10	5
Main topgallant	55–9	6	4
Fore topgallant	50	5–4	3
Spritsail topsail	50–6	5–3	4
Mizzen topgallant	44	7–3	3
Main royal	37–2	6–3	3
Fore royal	34	5–8	2
Main stunsail boom	52	9–8	
Fore stunsail boom	46	8–8	
Driver boom[3]	67	10	
M.T. stunsail boom	35	6–6	
F.T. stunsail boom	32	6	

Dimensions of the tops—feet and inches:

	Athwartships	Fore and aft	Hole (square)
Main	22–11	16–11	9–6
Fore	21–10	15–7	8–5
Mizzen	14–4	11–4	6–5

The artillery of the said ship consists of 110 guns, namely 24, 18, 12 and 8 [pounders].[4] The crew consists of 1172 men all told.

1 Some figures in this column must be wrong.

2 MS. has 42–3.

3 MS. has 'bout De Dehors De pelle en queue'. Lescallier gives this as 'Boute-hors de paille-en-cul'.

4 Numbers of each not given.

After *Le Majestueux* was brought out of dock she was completed in the dockyard. When this was done, the detachment from the ———[1] regiment came on board on March 1st 1781 for fitting out, which was done with great difficulty on account of the lack of seamen. On the 21st of that month she was moved to the Petite Rade and her fitting out was completed.

On the 6th of June we were in the Grande Rade; on the 12th we made sail. Our anchor[2] was barely weighed when we nearly drove ashore and had to moor. The first accident happened to a seaman who was completely crushed. We got under weigh again at once and put to sea with a fresh breeze towards 3 p.m.

Next day we entered the Gulf of Lions (an unfortunate place for navigators), but we made it without accident. We chased several vessels, in particular an English privateer, which the frigate *La Précieuse*, which was with us, pursued with gun-fire as far as the mouth of Port Mahon. Here the wind changed, but we continued on our way until the 20th of June.[3]

1 Name uncertain.

2 The MS. has 'armé', but this must be a mistake for 'ancre'. If there had been several ships in company, 'armée' might be possible, but this was not the case.

3 The account goes no further; the next page—in the same writing—describes some sort of screw-jack.

WEST COUNTRY SHIPYARD PRACTICE IN THE DAYS OF WOODEN SHIPS

By Vernon C. Boyle

VERNON BOYLE is known to members of the Society for Nautical Research for his masterly article 'The Bideford Polackers' (*M.M.*, Vol. XVIII (1932), pp. 109–24), published in the early days of a welcome revival of interest in regional craft. He also wrote the North Devon part of *Devon Harbours* (London: Christopher Johnson, 1952), and contributed a number of papers to learned societies in his native county, of which probably the most notable was 'Arts and Crafts of an Old Seaport' (*Trans. Devonshire Association...*, Vol. LXXX (1948), pp. 137–45). All were beautifully illustrated with line drawings, for he was a renowned artist in that and other media, and the text had an easy, readable style, none the less as complete and detailed as one would wish.

Boyle collected material of North Devon and North Cornwall interest, architectural as well as nautical, and at the time of his rather sudden death in June 1954, had for two or three years been preparing some of his sea lore for a book which was to appear in our joint names. Mrs Boyle has since kindly allowed me to see his notes, and although these are in many respects incomplete, there is much of interest. I have therefore put various items together in article form so that it can reach a larger public and serve also as a memorial to a distinguished local historian.

Robert Stapleton, who contributed much of the information for this first paper, was interviewed by Vernon Boyle on several occasions, the last in October 1950, and he has since, unfortunately, passed away. Boyle's original rough sketches to illustrate this paper have very kindly been copied and finished for reproduction by A. E. Field.

GRAHAME FARR

ROBERT STAPLETON, master shipwright, of Bude, said to me: 'It's wonderful what you could do with main strength and foolishness.' We were talking about some of the heavier work done in the small West Country shipyards fifty and sixty years ago. Robert was born in 1876, son of a master mariner and grandson of Robert Stapleton, the Bude master builder who built many little craft on the canal side where they were, incidentally, launched sideways.(1) The elder Robert died in 1875 and the yard passed to his nephew, Henry, to whom the younger Robert was apprenticed, and from whom in turn he inherited the tools and the business.

At Bude any nautical conversation comes, usually sooner than later, to the ketch *Ceres*, built at Salcombe in 1811, which, after over a century in local ownership, foundered in 1936 in Barnstaple Bay. The old shipwright said: 'We hove that old vessel up twice in my time, and a good many others too.' The chance to take down a full description of this intricate task was too good to be missed.

We had the *Ceres* in the Higher Basin alongside the little quay wall next to our yard on the west bank. Her bows were towards the canal entrance and we had lightened her as far as possible. We set up lengths of cable from the mast heads, above the hounds, down to the deck on the outer

side to help the shrouds take the strain of the masts when she lay over. Then with mast-head tackles made fast to posts ashore we hove her down, at the same time easing off her moorings so that as she listed her hull lay farther off from the quay. That was to allow us to bring in a couple of canal boats under her mast heads. These boats were square ended, box-like things, carrying

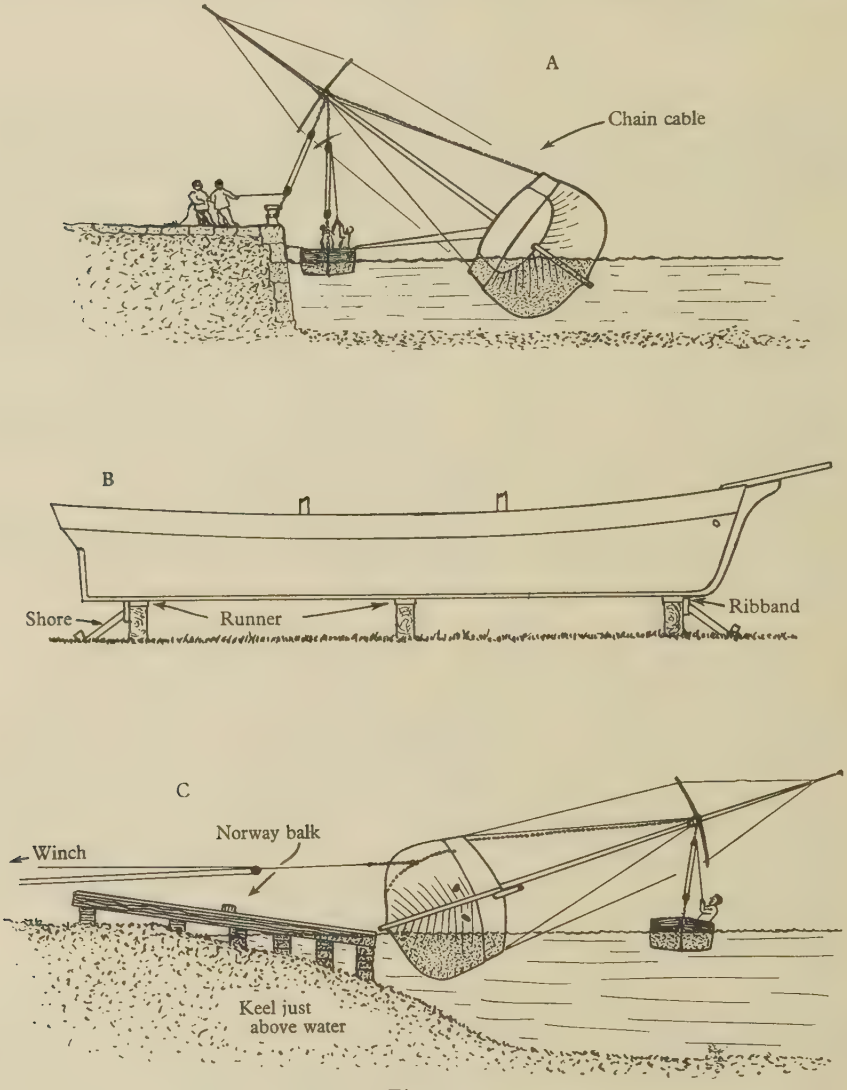

Fig. 1

about 4 tons each, which were towed about the canal. Purchases hung down from the mast heads into the two boats and were made fast by chains right round them. They had a ton or two of stones in them too (Fig. 1 A). The purchases were then set up and now we could slack off the first tackles, for the two canal boats hung from the mast heads and held the ship down. She was so far over that the water came up her deck on the port side within eight inches of the hatchways.

In a vessel with very wide hatchways you would have to take steps to keep the water out, say by fastening a couple of *dulls* (deals) along fore and aft on top of the coaming, and caulking them.

Then we unmoored the ship and took her round to the verge of the canal just below the Basin. As she moved so we swung her right round till she lay parallel to the west bank again, but now heading inland and with the two canal boats on the far side so that she listed outwards.

By this time we had the ways ready—two or three long baulks of timber, say a foot square, slanting from the water up the grassy shore. They lay parallel and the outer ends were under water supported on blocks sunk under them. We used only two ways for the *Ceres* and the *Agnes*, but three when lengthening was to be done. The ways were greased and runners were prepared on which the ship would rest. The runners were only pieces of oak, say 10 feet by 6 inches by $1\frac{1}{4}$ inches, and to keep them in position ribbands were fastened against the outer faces of the ways, not protruding above runner level, and held on by spikes and small shores (Fig. 1 B). A timber, about 8 inches square, was bolted down to the runners at right angles and connecting them. This was called the 'Norway balk'.

The ketch had three slings put right round her hull, in the parts where she tapered only a little. They were really chain cable and the chain was made fast to an iron plate on her side fixed by knocking out a treenail and putting a bolt in its place to hold plate, plank and timber together. The slings were stopped to ringbolts or other places on deck to prevent them slipping round the ship. Of course they did not go over the bulwarks, but by taking out the wash-boards (the lowest plank of the bulwarks) we were able to fit the slings close to the hull and deck. They were connected to big anchors and the falls went to the three crab winches.

We wanted to haul the ship to the shore, broadside on, so that her keel, only two or three feet under water by now, would just lip in over the ends of the ways. In some cases we hove the keel right out of the water before it lipped the ways, because craft varied greatly in buoyancy, depth, roundness and flatness of floors (Fig. 1 C).

Then we hauled her up. There were three big anchors up ashore in line with the ways, and we used three even if there were only two ways. From these anchors there reached down the standing parts of big tackles (you might have a treble block and a double block to each) and from the tackles to the ship were lengths of cable made fast to the slings by a round turn, up on the side, high in the air. The falls of these three tackles led each to its own crab winch, fast to the ground somewhere near the anchors. Each winch had its crew of three or four men and all told there might be twenty or thirty of us on the job. Word would go about the town and in the evening a crowd would come over to watch and help. With twenty or thirty men at the tackles it would be jolly and easy going, for the worst of the job would be over by that time, and there would be beer about.

So we hove away, and the keel came in on the ways. Then as we hauled she wanted to come more upright. We let her do that by slacking off the heaving-down tackles in the canal boats. Then her bottom began to come out of the water and she was no longer afloat. Up the ways she came, with pauses to get her more upright, until her outer bilge was on the ways as well as her keel. At that angle she stayed until we had got her quite clear of the water with room to walk round her in the dry and to work in comfort. While the last turns were being taken the boss was standing off to one side not far from her bows, and at last his arm went up: 'Vast heaving.'

The two masthead chains which had helped to support the masts to starboard had their lower ends cast off, and were now used for masthead tackles taken away up shore fast to a tree or a post. When we hove on these the old vessel came upright and then gently fell over with her starboard bilge resting on the Norway balk; not a big fall, for these coasters have little rise of floor. Some have bilge keels too and lie almost upright. What with the slant of the ways and the two-inch depth of keel, the *Ceres* hardly listed at all (Fig. 2 A).

We put blocks under her, perhaps three sets under her keel, and two under her starboard bilge, but we did not lift her off the blocks by jacking or wedging. She was then ready for work, off the ground by about the height of the parlour table.

So far I have assumed that all goes without a hitch, but we sometimes found one end of the ship wanted to come up faster than the other. Often this meant another temporary purchase, say

at the stern, because it was necessary above all to keep her square across the ways as she moved. To fix a purchase to the stern we would bore a hole through the stern-post and fit a ring bolt to it, with a forelock on the other side.

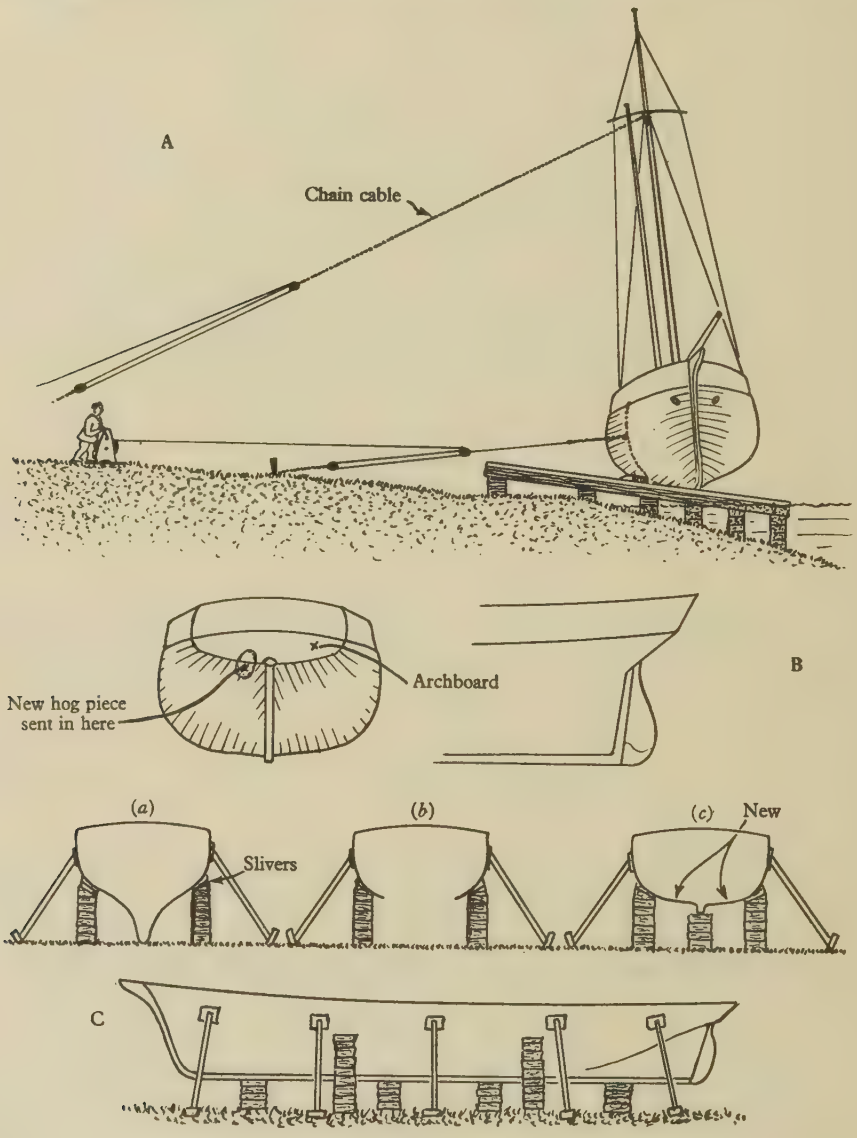

Fig. 2

And the work we did then? We took out bad planks, put in new, caulked her, put in a new stern-post and archboard, and at one time or another renewed probably every part of the *Ceres*. Before my time she had been lengthened after being hauled out. Lengthening was usually done amidships, but in the case of the *Ant* my grandfather opened her up aft and added a longer after part.

Rebuilding the *Lady Acland* into the *Agnes* during 1903–4 was the last big job we ever did in the Bude yard. We hauled her out as I have described, took out her masts and much of her planking, then cut her in half. New ways were built under her forrard, well greased and with slides on them. The forrard half of the vessel was pulled away by our men using crab winches, my uncle watching from a bit of rising ground ahead to see that the end moved straight. I stood amidships and held a thirteen foot batten in the gap. When I signalled that the gap was wide enough the winching stopped. Everything had to be in perfect alignment.

A new keel had to be put in, thirteen feet longer than the old one. We got her shored up with bottom shores, bilge shores, bend shores, bow shores up to the hawse-pipes, and quarter shores. Then we cut the old keel out and dropped it down. This meant cutting off the tops of the vertical bolts which held the keel and floors together, afterwards driving the bolts downwards. Then we put in the new keel in two parts. The forrard half was of English elm which went in from ahead of the vessel between the shores. The after half was of American elm, which we pulled and pushed in from astern. The scarph came well away from the main mast. When this was done a new keelson was put in and we planked her up again. At the finish it was not easy to see where the cut was made because one butt was never vertically above another unless it was four plank widths away. The new keel was about eighteen inches deep aft.

When we did this work on the *Agnes* I made a new rudder casing under my uncle's direction, but he was not watching when I drove the key down with a sledge! Probably all the pieces should have tapered so that the whole casing would be bigger above than below. This would minimize damage when a groundsea lifted a vessel and dropped her skeg hard on the beach or rocks—*skegging* as we call it in north Cornwall, but with the *Agnes* we only tapered the key piece.(2)

Several other big jobs we did afloat. To the *Ceres* we fitted a greenheart hog-piece and an oak archboard. To do this we tipped her down by the head and the stern-post and old archboard were taken out. The new timber, a baulk salved from a wreck, was brought up astern on the deck of the *Ant* and launched into the *Ceres* underdeck. It dropped down exactly into place and never moved again. The archboard was made from a board of great width specially obtained by the owners (Fig. 2 B).

The planking across the stern above the archboard was another feature needing a lot of skill to make or repair. With the *Ceres* and other 'square sterned' craft the planking was horizontal. It was rabbetted, but not caulked, having to be fitted very carefully so that it never leaked. In the 'elliptical' type of stern the planking was up and down, but old ship-wrights would still plank them horizontally if allowed. There was a great art in this as the planks leaned outwards, tapered, had a lot of *sni*, as we described the curved shaping, so that it ran into the vessel's sheer in a sweet line.

An old Northam shipwright, Charles Hearn, who was an apprentice with the shipbuilding firm of Westacotts when they moved from the Taw to the Torridge, described to me another intricate task carried out on the *Iron King*. She was a sharp-keeled yacht and due to a change of ownership was wanted for coastal trading, for which she would have been useless in this area as she could never lie aground without legs. It was decided to alter her bottom completely.(3)

She was first lightened as far as possible, with the masts and rudder taken out, and then floated to a small grid-iron out of reach of all but spring tides on the foreshore at Lower Cleave Houses. She lay level with the bank, bows upstream, on keel blocks, with two bilge blocks each side and long shores, five a side. The heads of some of the shores were held in place by angle irons bolted through the skin of the ship with coach screws to

give greater security. Then, by driving in slivers about 4 ft. long athwartships above the bilge blocks and under the heels of the long shores, the whole ship was set up (lifted) so that the keel blocks could be taken away (Fig. 2 C). Some were taken away easily, but in other cases a thin capping block, placed there purposely, had to be split away by chisels. Setting up in the case of this small vessel was done by seven men each side striking the slivers with their pinmauls in concert, the signal being the sharp word 'strike' by the yard foreman, who stood a few yards ahead of the bows.

The keel blocks being removed, the cutting up proceeded. The keel, keelson, floors, deadwoods and lower parts of the stempost and sternpost and bottom planking were sawn through and split out. None could be used again. New frames were scarphed to the old, most of them practically flat in shape. The new keel was made up on the bank, two pieces of elm scarphed together, but no bolt holes were bored at this stage. The keelson, a single length of pitch pine, and the floors, were also prepared on the bank. They were then built into the ship in the space between the bilge blocks. The keelson was first hoisted up and suspended inside the hull until the keel had been raised into place by jacks. Keel blocks were then built up, the jacks removed, and the keelson lowered on to the keel. The operation reduced her draught by about three feet, but as no lengthening was undertaken no extra stringers were built in. However, to give strength, remembering she was originally a yacht, some extra thick planks, $3\frac{1}{2}$ to 4 in., were fastened as far out (i.e. as close to the bilge blocks) as they could be placed and must have strengthened her considerably longitudinally. She was then caulked, a day's work being taken as 100 ft. of seams, and tarred, and was ready for floating to the main grid farther out in the river where she was fitted out.

Notes by Grahame Farr:

(1) Vessels built by the Stapletons were: 1835, sloop *Lady Acland*, 53 tons; 1836, smack *Affo*, 43 tons; 1837, sloop *Victoria*, 36 tons; 1842, sloop *Mirre*, 27 tons; 1842, sloop *Velocity*, 45 tons; 1857, schooner *Elizabeth Scown*, 61 tons; 1861, schooner *Sir T. D. Acland*, 40 tons; 1872, schooner *Annie Davey*, 73 tons; 1878, schooner *Agnes*, 65 tons. The ketch *Jessamine*, 56 tons, built in 1877, probably came from the same yard, although her 'Builder's Certificate' was apparently signed by Charles Carter. Similarly the ketch *Agnes*, 67 tons, rebuilt from the earlier *Lady Acland* in 1903–4, was officially ascribed to Rudland Brothers.

(2) The *Agnes* is still afloat, having been purchased by a man wishing to sail to Australia. She left Appledore for Las Palmas in May 1957, and eventually reached the West Indies, where she is reported to be trading for a while. She must be a most interesting craft and doubtless retains many features of her predecessor of 1835. Boyle noted that her windlass was probably the original, that she had hemp shrouds and that she was entirely trenail fastened. Peter Herbert, the young Bude mariner who owned her until recently, states that of the spars put into her in 1904, the main-mast was from the ketch *Wild Pigeon*, wrecked at Bude in February 1904, and the mizzen-mast was adapted from one of the yards of the Austrian barque *Capricorno*, wrecked there in December 1900.

(3) The *Iron King* had an unusual history. She was built in 1864, some say as a Revenue Cruiser and some say in India, but the place of her build is not officially recorded. She was first registered in 1888 as the cutter yacht *Desmond*, 43 tons, for some Bristol merchants. In 1889 she was sold to Captain John Moss, of Clovelly. In 1890 she was renamed *Iron King* and at the same time re-rigged as a ketch. In 1891 she was lengthened by 15 ft., this increasing her register tonnage to 60. For about ten years she was employed, presumably on a charter basis, to give sail training to orphan boys who were at school at Yeoldon on the Torridge, taking about twenty boys on each cruise. Was this the first instance of private effort in this manner? Captain Moss retired in 1899 and the ketch was converted to cargo carrying as described above, her tonnage afterwards being 54 gross, 43 net. Her master was William Ackford of Appledore, who later acquired her. In 1927 she was sold to Saltash owners and renamed *Saltash*. Her hulk is reported to be still lying in some creek off Hamoaze.

EARLY OCEAN-GOING CRAFT IN THE EASTERN PACIFIC

AN APPRECIATION OF PART OF 'AMERICAN INDIANS IN THE PACIFIC'[1]

By Commander P. Clissold, R.D., R.N.R.

THE vast reaches of the Pacific ocean embrace more than one-third of the whole area of the world and would easily engulf the combined continents of Europe and Asia. In this immensity of water the groups of islands are scattered as sparsely as handfuls of chicken-feed in a farmyard. Yet there is hardly an island which can support life which has not been reached and settled by mankind. This is a great wonder; and the greater when we realize that the first inhabiters had only the resources of a neolithic culture to aid their voyaging.

In discussing the origin of these early seafarers, which he does with something of the skill and zest of a detective in a 'whodunit', Thor Heyerdahl naturally has something to say about their ships. Since he is one of the few men alive who has sailed in a dugout canoe and on a log raft, his views must be of exceptional interest, for these two types were the first to span the distances from continent to the islands.

The log raft, which strikes the European as so obviously unsuitable for sea voyaging, was in fact an outstandingly successful adaptation of local materials to particular needs. Balsa wood, which grows in the northern part of Peru and in Ecuador, is lighter than cork and a single man can easily carry a 30 ft. log 3 ft. thick. It is soft enough to yield to the onslaught of stone-headed axe. Bamboo and bejuco lianas for lashings are easily come by, and these materials were the only ones the earliest navigators needed. The balsa rafts were built of any odd number of logs and the largest were up to 80 ft. in length and capable of carrying 30 tons of stores and cargo. We have the exact measurements of the only contemporarily built one which was designed to resemble the ancient ones as closely as knowledge permitted. The *Kontiki* was built of nine logs of Ecuador balsa pointed at the bow and with deep grooves cut to take the lashings. The central and longest log was 45 ft. long and the two outermost 30 ft. The raft was

1 Thor Heyerdahl, *American Indians in the Pacific. The Theory behind the 'Kontiki' Expedition.* London: George Allen and Unwin.

18 ft. wide and the logs were lashed crosswise at intervals of about 3 ft. to nine thinner athwartship logs about 1 ft. in diameter. A deck of split bamboo and plaited reed mats was laid over most of the partly submerged and slippery balsa logs and, just abaft amidships, a hut 14 ft. by 8 ft., of heavy bamboos and plaited reed walls thatched with banana leaves, completed the vessel. She was found to be 'capacious, commodious, exceedingly seaworthy', but slow.

The rigging comprised a 29 ft. bipod mast of mangrove wood stepped forward of the cabin and this carried a 15 ft. by 18 ft. square sail bent to a yard of two bamboo stems lashed together. A 19 ft. steering oar of mangrove wood was provided and five 6 ft. centre-boards. The latter stuck down between the logs and were intended to reduce leeway, but their equally important function of steering the raft was unsuspected. It is this use of centre-boards which points to the sea-faring genius of these old South American sailors. The buoyant balsa logs and tough lianas might have suggested themselves to any observant would-be seaman; but not the use of the centre-board. These were not generally known in Europe and North America until about 1870:[1] that they were in use in pre-historic times in Peru is proved by their discovery in tombs in the Inca area of the southern Peruvian coast.

G. Juan and A. de Ulloa, two Spanish naval officers, made in 1736 a 'thorough-going analysis' of the balsas still, of course, then in use.

> The greatest singularity of this floating vehicle is, that it sails, tacks, and works as well in contrary winds as ships with a keel, and makes little leeway. This advantage it derives from another method of steering than by rudder; namely, by some boards, 3 or 4 yards in length, and half a yard in breadth, called *guaras*, which are placed vertically, both at the head and stern between the main beams, and by thrusting some of them deep in the water, and raising others, they bear away, luff up, tack, lay to, and perform all the other motions of a regular ship. An innovation hitherto unknown to the most intelligent nations of Europe....
>
> A *guara* being shoved down in the fore-part of the vessel must make her luff up; and by taking it out, she will bear away or fall off. Likewise on a *guara* being shoved down at the stern, she will bear away, and by taking it out of the water, the balsa will luff, or keep nearer to the wind. Such is the method used by the Indians in steering the balsas, and sometimes they use 5 or 6 *guaras* to prevent the balsa from making leeway, it being evident that the more they are under water, the greater resistance the side of the vessel meets with; the *guaras* performing the office of lee-boards used in small vessels. The method of the steering by these *guaras* is so easy and safe, that when once the balsa is put on her proper course, one only is made use of, raising, or lowering it as occasions require, and thus the balsa is always kept in her intended direction.

'If we had been familiar with Juan and Ulloa's report', says Heyerdahl, 'we should probably have steered ashore safely on the first Polynesian

1 S. K. Lothrop, *Aboriginal Navigation of the North-West Coast of South America*, Vol. LXII (1932), p. 237. London: Royal Anthropological Inst. J. Hornell, *Water Transport, Origins and Early Evolution* (1946), p. 82. Cambridge University Press.

island we saw, instead of being forced to crash-land through the surf on the windward side of a reef, after drifting past two earlier islands within sight of land.'

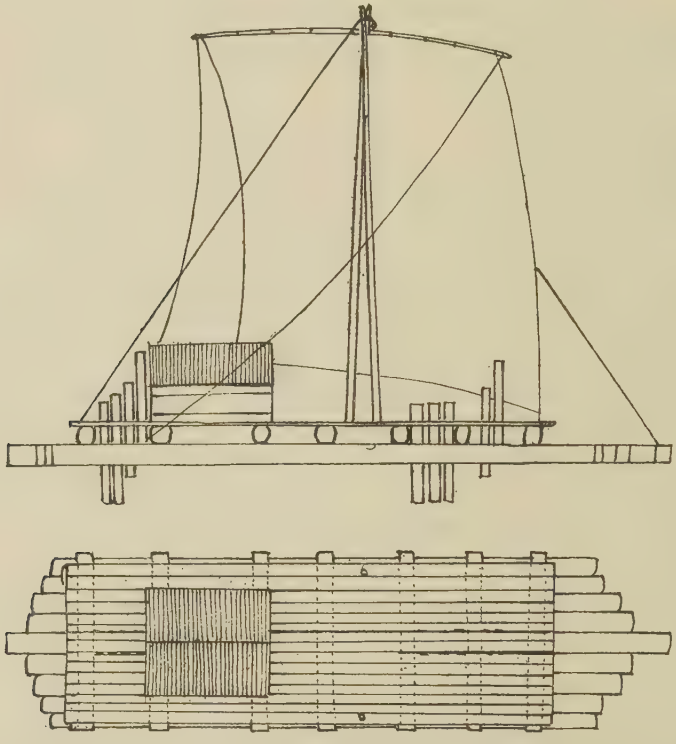

Fig. 1. Balsa raft. After plan made in Guayaquil by F. E. Paris (1841–3). Length up to 80–90 ft. Beam up to 25–30 ft. Carrying capacity 20–25 tons. (The line of reef points and bowline shown in the plan have been omitted here as probable adoptions from European ships.)

When Thor Heyerdahl proposed making his voyage westwards from Peru—which was undertaken to show the practicability of extended voyages on balsa rafts—he met with practically unanimous prophecies of disaster: the chief objections were: (1) that balsa logs were absorbent and the raft would sink after a short drift; (2) they were fragile and would crack under the weight of the cargo as soon as bow and stern were simultaneously lifted by separate seas; (3) the lashings would chafe through and wear out after two weeks' working in a seaway; (4) 18 in. of freeboard was insufficient; cargo and crew would be swept overboard in the first gale; (5) the narrow centre-boards were insufficient to resist wind pressure.

On the first point Heyerdahl says: 'We found that the sea-water quickly penetrated the outer surface of the logs to a depth of an inch or more, after

which the absorption of water proceeded very slowly until a certain limit was reached, after which hardly any change could be noticed.' As for strength: the raft withstood the battering on the windward side of a coral reef without disintegrating, while the lashings tended to dig themselves slowly into the surface of the wood. The low freeboard and lack of bulwarks, which in a cold climate would make protracted voyaging impossible for even the most stoical of crews, here proved to matter little. In one of the two full gales which the *Kontiki* weathered 'two men were for a second lifted right off the bamboo deck, and on an ordinary decked craft they would have been carried out to sea along with the sweeping water masses. But the moment the big sea fell upon the men it disappeared down through the raft as through a wide-open sieve, and the suction of the vertically disappearing water made the men just sink back to their places on deck.' Compared with the reed-floats, tiny balsa rafts ridden astride (and called by the Spaniards *caballitos*), floats made of calabashes tied in nets, and inflated seal-skins, all used by coastal fishermen, the balsa sailing raft must have seemed magnificently suited to ocean voyaging.

We have our first account of one of them from Juan de Saamanos (1526). Francisco Pizarro sent two expeditions to the south part of Columbia. 'A peculiar vessel' was sighted, 'north-bound from the Inca Empire, heavily laden with cargo from that southern country with which no European was yet acquainted.' This was, indeed, a dramatic and historic meeting: the 40-ton caravel of medieval Spain and the sailing raft, of about the same dead-weight capacity, of aboriginal Peru.

> As Ruiz' party was sailing along [says Saamanos], near what is now called the Bay of St. Matthias, just to the north of the equator, they captured a vessel which carried 20 persons on board, of whom they threw eleven overboard. Of the others who were captured, the pilot (Ruiz) retained three. He set the others ashore so that they could go away. The three who were kept as interpreters were well treated and were brought back with him. This vessel which I say he captured appeared to have a capacity of 30 tonelas (36 gross tons). The flat underbody and keel were constructed of poles as thick as posts, lashed together with ropes of what they called hennequien, which is a kind of hemp. The upper part was of more slender canes, tied together with the same lashings, and the crew and cargo went dry while the bottom was awash. It carried masts and yards of very fine wood, and cotton sails in the same shape and manner as on our ships. It had very good rigging of the said hennequien, which is like hemp, and some mooring stones for anchors formed like grindstones.

Murphy,[1] basing his report on various early chroniclers, says the unfortunate eleven threw themselves into the sea presumably to swim for the shore.

Though this is the first European notice of the balsa there is strong traditional evidence of earlier voyages in the Eastern Pacific. In assessing the value of such accounts we must remember that an ancestor-venerating

1 R. C. Murphy, 'The earliest Spanish advances S.W. from Panama along the W. Coast of S. America.' *Hisp. Amer. Hist. Rev.* Vol. XXI (1941). Durham, N. Carolina.

but illiterate people took great care to pass the record of important events orally from one generation to the next.[1] Pedro Sarmiento de Gamboa, himself a navigator and explorer of the first order, and an historian generally more inclined to understate than glorify Inca achievements, records the story of Tupac Yupanqui Inca, who lived about the year 1400. This energetic and enterprising prince, having heard of islands in the Pacific from merchants, determined to go there. He built a fleet of balsas sufficient to embark 20,000 chosen men and

> navigated and sailed on until he discovered the islands Avachumbi and Ninachumbi, and returned, bringing back with him black people, gold, a chair of brass, and a skin and jaw-bone of a horse.... An Inca now living had charge of this skin and jaw bone.... He gave this account, and the rest who were present corroborated it.... I am particular about this because to those who know anything of the Indies it will appear a strange thing and difficult to believe. The duration of this expedition undertaken by Tupac Inca was nine months, others say a year....

The most probable of the possible courses taken by the expedition would seem to be that Tupac, sailing with his fleet of 400 or more rafts on a line of bearing in order to search as large an area as possible, sailed westward until he sighted Timoe and Mangareva in the Gambier Islands, the most easterly of all the Polynesian Islands excepting Easter Island. Here there is a passage through the reef named 'The Great Passage of Yupa', and here 'the Mangarevans have a tradition of a chief called Tupa, a red man who came from the East with a fleet of canoes of non-polynesian model, more like rafts—surely a memory of some Peruvian balsas, or raftships.'[2] Possibly disappointed with this discovery they returned to the east and, if they had made their landfall on the Panama isthmus, they could there have obtained the booty with which they returned.

Such a large organized expedition could only have taken place when the balsa raft had become a thoroughly developed and tested type of sea-going craft.

Captain Beechey found no canoes at the Gambier Islands in 1831 but only 'rafts or katamarans...40 to 50 ft. in length'. 'The Traditions of Tonga and Samoa make repeated mention of the use of large sailing rafts in old times, indeed, in Tonga they are credited with having been the vessels employed for the conveyance of some of the cyclopean masses used in the construction of the megalithic monuments from Wallis Island, 500 miles to the northward.'[3] There is also the Maori tradition that rafts reached New Zealand. To sum up: Hornell says: 'it seems probable....

1 In 1890 a New Zealand court heard an old man give evidence of his tribe's descent. He spoke for 3 days and named 1400 people in clan, sept and family, going back 800 years.

2 F. W. Christian, *Early Maori Migration as Evidenced by Physical Geography and Language* (1924).

3 J. Hornell.

that much of the earliest movement in the Pacific was effected by men who employed some form of sailing raft in their voyaging from island to island.'

The second, and very dissimilar, type of ocean-going craft appear to have originated on the heavily forested and deeply indented coast of North West America. Here is a coastal country formed not unlike Norway and forming the character of a people not unlike the Vikings in the distance of their voyaging. On such a coast travel was far easier by water than by land, and by water too came the more easily obtained food. No wonder that, as Niblack says: 'the canoe is to the northwest coast what the camel is to the desert. It is to the Indian in this region what the horse is to the Arab. It is the apple of his eye and the object of his solicitous attention and affection. It reaches its highest development in the world among the Haida of Queen Charlotte Islands.'[1]

Here the boat-builders' raw material was not buoyant balsa, but enormous soft-wood trees, which could be converted to canoes by patient industry, stone axe and fire. 'When the North West Indian decided to fell one of his giant trees to make a capacious canoe, he first performed a ceremony, making a sincere apology to the tree and explaining to it his compelling need....' The chopping was done with horizontal blows of an adze, i.e. with the grain, and

> commonly, when the chopping had been carried on a little way right round the tree, a fire was kindled inside the grove to carry on the process, and the fire was generally regulated by a plastering of wet clay.[2] Old stumps of huge trees felled in this way may still be seen in Bella Coola Valley B.C.... When the tree was felled, the aborigines... first split their colossal timber lengthwise along the middle, by using wooden wedges with tough bark tied round the upper part. The wedges were driven in by a wooden beetle, or more often by a stone sledge-hammer....When the colossal log was thus split lengthwise, the largest and best half was hollowed out by means of a chisel or a stone adze, and sometimes both peoples used fire to char the inner part to ease the carving.

A low freeboard was necessary for paddles so, as a rule, only a raised bow and stern section were added. These were sewn on with roots or vegetable fibre, never nailed or pegged. 'We can never sufficiently admire the patience and labour with which they have cut down huge trees, dubbed the plank, made them perfectly smooth, and at last brought the unwieldy vessels to the great degree of perfection in which we saw them.'[3] The finished canoes are described as 'often of great size, beauty and seaworthiness and are probably the world's highest achievement in this direction'.[4]

1 A. P. Niblack, 'The Coast Indians of S'ern Alaska and N'ern British Columbia'. *Rept. Nat. Mus. Brit. Columbia* (1888).

2 T. Heyerdahl, *op cit.* p. 100. G. Turner, *Nineteen Years in Polynesia* (1861). E. Best, *Polynesian Voyages.* Dominion Mus. Monogr. No. 5. Wellington.

3 G. Foster, *A Voyage Round the World* (1777).

4 W. W. Holmes, *Handbook of Aboriginal American Antiquities*, Part 1. Washington (1919).

'When they embark, one Indian sits in the stern, and steers with a paddle, the others kneel in pairs in the bottom of the canoe, and sitting on their heels, paddle over the gunwale next to them. In this way they ride with perfect safety the highest waves, and venture without the least concern in seas where other boats and seamen could not live an instant.'[1] What men fail to think of doing is almost as remarkable as what they invent, and the oar never seems to have been developed from the paddle.

As a comment upon the seaworthiness and endurance of these dugout canoes it will be remembered that Captain J. C. Voss fitted out one for a voyage round the world which he undertook sometimes alone and sometimes with a companion. The *Tilikum* was a British Columbian craft 38 ft. long overall, 30 ft. on the bottom (not more than half the length of the largest canoes). Her maximum beam was 5 ft. 6 in., at the water line 4 ft. 6 in., at the bottom 3 ft. 6 in. She proved a fine sea-boat but was far from weatherly; as her draught was but 22 in. forward and 24 in. aft this is no surprising! For this protracted voyage she was decked in and rigged as a 3-masted schooner, and her hull was strengthened internally with some ribs against the strain of her rig.

Fig. 2. Dugout *Tilikum* before conversion. From *The Venturesome Voyages of Captain Voss*. Length overall 38 ft. Beam 5½ ft. Draught 2 ft.

None of the North West American coastal Indians understood the art of sailing as we do, but they did, of course, grasp the use of a sail before the wind. Sails were made of matting and even wood! A wooden specimen preserved in a museum is about 9 ft. square and $\frac{5}{8}$ in. thick, made of several pieces of wood joined by sewing with spruce root. The ends of the sail are reinforced by strips with the grain running in the opposite direction. Such sails were employed particularly when canoes were lashed together.

Hornell says that 'the Polynesian islanders developed no spacious form of ship, but constructed their small craft on the principle that they should follow—and not resist—the towering ocean seas. They resorted as an alternative to well-balanced double canoes for real ocean voyaging, making their craft adaptable to the motions of the unsheltered water, and securing

1 H. H. Bancroft, *The Native Races of the Pacific States of N. America*. Vols. I–V. London (1875).

toughness and flexibility by always using roots and ropes for lashing, instead of nails or wooden pegs.' When lashed a little distance apart from each other the intervening space was decked in, and it was thus, according to all Maori traditions, that their forefathers sailed over the ocean to New Zealand a few generations before Columbus. At the opposite side of the Pacific, North-West American tribes have traditions of the former use of double canoes, and the Tsimyan Salmon-Eater tribe of the Nass and Skeena rivers have one describing a local sea voyage of the first female progenitor of their nation. 'Dzelarhons' (which was the name of the lady) 'was seated by the messengers on boards laid across the top of twin canoes and brought under sail to the home of the suitor's uncle.'

In considering possible ocean passages for early voyagers one must, of course, note the prevailing direction of winds and currents. To sail eastwards across the Pacific in the latitudes in which the islands of Polynesia lie would be analogous to a man attempting to mount a descending escalator, for Trade Winds and their resulting drift currents make a voyage westward easy and an easterly one correspondingly difficult.

Great logs of Oregon pine occasionally drift ashore in the Hawaiian Islands to this day, and Thor Heyerdahl finds that a party of Kwakiutl Indians from the Bella Coola valley in British Columbia made a desperate escape from an invading band.

> Only refugees without choice take women into their canoes and let the wind and current at their will carry whole families away from their homes and into the open spaces of an unexplored ocean. Dramatic expeditions of this sort, away from all familiar shores and into the endlass uncharted water-spaces, represent compulsory drifts or at best a choice of the lesser of two evils. Capitulation to a victorious war-party of Salish head-hunters would probably be the *larger* of *any* two evils.... A people who sustained life ashore by ocean fishing would no more suffer from starvation at sea than a hunter by getting lost in his own forest; and among drift voyagers of a nation that does not abhor cannibalism, one may always count on there being some survivors at the end of the journey.

Further voyages brought their descendants to the other Polynesian islands and, eventually to New Zealand.

It does not seem probable that the Indonesians, with the perpetually contrary winds hindering them, pushed far beyond their borders even into Melanesia. It happens that the Indonesians developed their craft into large two-masted sailing ships steered by rudder and with large and massive double outrigger of complex design. Such a craft had great capacity for carrying cargoes in Indonesian waters, but was stiff and clumsy and little suited for ocean voyaging.[1] The limit of the double outrigger runs between Indonesia and Papua and Melanesia, eastward only the single outrigger

1 J. Hornell, 'Outrigger devices'. *J. Polynesian Soc.* Vol. LII, No. 5. Wellington, N.Z.

or double canoe is found, and this line would seem to mark the limit of Indonesian maritime influence.

The picture is incomplete, and perhaps will remain so. But it seems that we may be pretty certain that the first ocean voyages originated in the first millennium A.D. in equatorial South America in those strangely efficient sailing rafts. Later, a second wave of seafaring, started by bitter compulsion from British Columbia to the Hawaiian Islands, blossomed exceedingly to cover all Polynesia. Voyages made in great dugout canoes or double canoes culminated in the arrival in New Zealand, a quarter of a world away, the canoes riding 'over tempestuous seas like seafowl'.

THE IMPACT ON THE FLEET OF THE DISPOSAL OF PRISONERS OF WAR IN DISTANT WATERS, 1689–1783

By Olive Anderson

BRITAIN'S most obstinate problem in the long series of seventeenth- and eighteenth-century wars which established her supremacy at sea was perhaps that of manning the fleet. One solution to the problem from which contemporaries always hoped much was the time-honoured one of securing the return of captured British seamen by exchanging prisoners with the enemy. But since her enemies' need of seamen was sometimes even more desperate than her own, it was in fact by no means always in Britain's interest to do this; the whole naval situation needed to be carefully assessed and policy shaped accordingly if exchange was to make its full contribution to the outcome of the struggle. So far as prisoners landed in Great Britain were concerned, this was fairly effectively done. But in distant waters, where it was even more important that prisoners should be disposed of advantageously, since difficulties in replenishing the crews of all kinds of shipping were even greater than at home, it was unfortunately not naval requirements but practical necessities or even private interest which repeatedly proved decisive. Thus it came about that the disposal of these men, which could have played a vital role in promoting Britain's rise to maritime supremacy, too often hindered it.

In the Mediterranean, which was a major theatre of operations throughout most of this period, policy was inevitably dictated less by the Admiralty than by the physical impossibility of detaining many prisoners for long. The captor ships clearly could not keep them permanently; there were few opportunities to send them to England;[1] and neither Gibraltar nor Minorca could conveniently receive large numbers, in spite of repeated requests

1 When a growing deficit in our exchanges with France was giving some concern in 1706 all the prisoners taken by the fleet in the Mediterranean, who had previously been exchanged there at the admiral's discretion, were ordered to be sent home (*Calendar of State Papers Domestic, 1702–3*, p. 717, and Navy Records Society, *The Life of Sir John Leake*, ed. G. Callender (London 1918), Vol. I, p. 311), but this proved so inconvenient that the order was soon limited to captured officers only (Navy Records Society, *The Byng Papers*, ed. W. C. B. Tunstall (London, 1930–33), Vol. I, p. 151, Vol. II, pp. 287, 337; *Leake*, Vol. II, pp. 174–5). (Some of the research on which this paper is based was assisted by a grant from the Central Research Fund of London University.)

from commanding officers that provision should be made for their doing so.[1] Local exchanges were therefore often made, commonly from Minorca with Toulon or Barcelona, but also from Gibraltar with Toulon or Marseilles, or by individual consuls.[2] But these were usually made on the loose all-for-all basis common in impromptu exchanges, and probably as a rule[3] gave the advantage to the enemy, since Britain normally took the greater number of prisoners in these waters. At any rate Rodney, always highly alert over this question, was convinced of the need for caution after his victory over de Langara off Gibraltar early in 1780, and refused to exchange any of his prisoners until all the English whom Spain had been detaining for so long had been freed, and then man for man only. 'In vain we may conquer', he justly wrote, 'if unconditional promissory notes can forthwith put new arms into the Enemy's hands and they openly avail themselves of the British generosity, without making a just return, and detain the British seamen in their prisons.'[4] Most of his prisoners were accordingly sent to England in his returning transports, 'which I have reason to believe', he rightly assured the Admiralty, 'will be such a loss of seamen to Spain she will not soon recover'. Only enough to exchange for the British prisoners in Spain were left behind.[5]

But so convenient an opportunity to send prisoners to England seldom occurred. Hence the development of the system of release against consular certificates—a system peculiar to Mediterranean, Baltic and North Sea ports. Fundamentally this was an attempt to overcome the drawbacks of the convenient, and indeed inevitable, practice of dumping prisoners in neutral ports. Before Anne's war prisoners were simply abandoned, and thereupon usually signed on with the first likely ship that needed hands. They could not of course be pressed for the fleet, at least without the consent of the neutral power in question.[6] Thus their capture did not benefit the

1 The difficulty of disposal was particularly acute in the war of 1739, when the Governor of Gibraltar refused to allow the fleet to land its prisoners at all (cf., for example, Public Record Office, State Papers (hereafter referred to as S.P.), 42/24/625, S.P. 42/27/336, S.P. 42/28/84, 190).

2 E.g. Public Record Office, Admiralty (hereafter referred to as Ad.), 1/384, Admiral Osborn to the Secretary to the Admiralty, 3 June 1757 and 30 March 1758, and Admiral Saunders to the same, 9 April 1761; Colonial Office (hereafter referred to as C.O.), 174/13/98; cf. S.P. 42/56, Sick and Hurt Commissioners to the same, 16 May 1780. For consular exchanges see, for example, S.P. 104/108/201, S.P. 42/119/63, 65 and Ad. 1/4138, 6 January and 6 February 1779.

3 However, returned naval prisoners formed a valuable 'marine corps' during the siege of Minorca in 1781–82 (C.O. 174/13/88, cf. C.O. 174/12/191).

4 Ad. 1/311, 7 February 1780.

5 *Ibid.* 12, 15 and 16 February 1780.

6 Sir John Leake provoked Portuguese protests when he ordered 150 prisoners brought by a French ship to Lisbon for exchange to be taken on board his squadron before they could be landed there (*Leake*, Vol. 1, p. 248).

captor power, and might well involve for their own country the loss of their services to neutral or even enemy shipping. In Anne's war captains of privateers and men-of-war were ordered when landing prisoners in this way to secure first of all a certificate of their numbers and ranks from the enemy's consul at the port, or if there were none, from the magistrates or if necessary the prisoners of highest rank. These certificates were then to be forwarded to the exchange authorities in France or England, so that the prisoners so certified as released could be included in the central exchange accounts, as though they had been carried home to France or England and exchanged there.[1] The French, urged on no doubt by the fact that they had normally fewer prisoners to exchange than England, made every effort to secure these certificates, and thanks perhaps to their superior administrative machinery, they seem to have had greater success in doing so than the English.[2] Yet in spite of this, consular certificates again and again swung the balance in the exchange accounts really seriously against them, and in the war of 1739 against the Spaniards as well. For the system was used more in the Mediterranean than in the Baltic or North Sea, and it was there that British cruisers and privateers were always most successful, since it was there that Spanish and above all French trade was greatest. Nevertheless, serious drawbacks remained from the British point of view—so serious that at the beginning of the Seven Years War the Admiralty even recommended, quite unrealistically, that the practice should be stopped altogether and ships forbidden to land prisoners in neutral territory.[3] For example, an enemy consul might buy a captured ship and get it to sea again on the spot with its old crew, released against his own receipt.[4] Many certificates went astray or were disputed, and many prisoners released in this way were never certified. Nor does it appear that any effort was made to use this system to encourage consuls to subsist British seamen in neutral ports until they could be got securely aboard British ships again.[5]

Outside Europe, far more prisoners were exchanged locally and far fewer included in the central accounts, either by credit or by being actually

1 S.P. 42/119/9, 65. From 6 January 1708 letters of marque were to have a clause ordering prisoners to be delivered to a French consul against his certificate (Ad. 1/4091/499), and from the beginning of 1709 English naval commanders were ordered to get these certificates in duplicate as a further safeguard (*Byng Papers*, Vol. II, p. 337).

2 Cf. Archives Nationales de France, Marine (hereafter referred to as Marine), B 2 209, f. 100. In the war of 1739 the Admiralty did not issue orders to take such receipts until 1745, although by then many prisoners had already been landed (Ad. 98/2/240, Ad. 1/382, Medley to the Secretary to the Admiralty, 21 December 1745).

3 S.P. 42/39/331.

4 Cf. Ad. 1/387, George Johnstone to the Secretary to the Admiralty, 30 November 1779.

5 Such an attempt was made by the French, cf. Marine B 2 73, f. 600, B 3 91, f. 426.

sent to England. Commanding officers of squadrons normally exchanged prisoners at sea with their opposite numbers as they saw fit, and no doubt did then usually get their men, although there was always a temptation for them to take refuge on foreign shores.[1] It was for station commanders in the West Indies that the issue was unfortunately not only particularly important, but also particularly complicated.[2] It was particularly important because here the main French attack always came from small privateers whose numbers were limited only by the necessity of manning them, and because here English manpower losses were high in relation to their shipping losses—far higher than in any other theatre. It was particularly complicated because the interests of the navy and those of the colonists were commonly completely opposed on this matter, yet neither could act quite independently of the other.[3] Naval officers needed to get rid of their prisoners, but they also knew that the quickest and surest way of clearing the sea of these enemy privateers was to deprive them of seamen by refusing any exchange, however many British seamen had to be left in French hands as a result. Occasionally an exchange could conceal some useful reconnaissance work, but apart from this consideration (which obviously cut both ways), naval interests invariably demanded that prisoners should be detained on the British islands or made to work their passage to England; if they were exchanged at all, then this should be only on a strict man-for-man basis and under safeguards designed to ensure that the men returned were actually secured for the fleet. (All too often they escaped its clutches.) The colonists, on the other hand, were usually eager to exchange freely. The maintenance of large numbers of prisoners placed a heavy burden on their limited resources in food, manpower and accommodation; and the annual convoy of homeward-bound merchant ships which sailed before the onset of each hurricane season could hardly take more than a few back with them. Exchange not only offered immediate and large-scale relief from these burdens, but also opportunities for substantial profits from illicit trading with the enemy. Moreover, it gave confidence (or so they claimed) to the North American traders who provisioned the islands and whose seamen were so often captured. Only after 1761, when the cost of maintaining prisoners of war was assumed entirely by the Admiralty, were they ready to admit the importance of at

1 Cf., for example, *Augustus Hervey's Journal*, ed. D. Erskine (London, 1953), p. 284.

2 On this aspect of exchange, cf. R. Pares, Vol. 1, 'Prisoners of War in the West Indies in the eighteenth century', *Journal of the Barbados Museum and Historical Society*, Vol. 1 (November 1937), pp. 12–17, and 'The manning of the fleet in the West Indies, 1702–63', *Royal Historical Society Transactions*, Vol. xx, 4th series (1937), pp. 31–60.

3 The equally complex issues on the French side are well illustrated in Archives Nationales de France, Colonies, C 8A 9, 10.

least controlling exchange. But even after 1761 colonial Governors and Assemblies rarely saw entirely eye to eye with naval commanders on this subject; and since dual civilian and naval control persisted, and naval officers were themselves torn between trying to starve enemy privateers of men and the (often disappointed) hope of manning their own ships, a logical and effective policy was rarely pursued.

The normal practice was for Jamaica to have an agreement of one kind or another with Hispaniola and Cuba,[1] and the Windwards and Leewards with Martinique and Guadaloupe. In Anne's war the surpluses in these latter exchanges were simply credited to the European accounts,[2] and not until 1711 did the Governors of Jamaica and Barbados, appalled by the spying, contraband trading and reinforcement of enemy privateers which they realized exchange involved, succeed in getting their Assemblies to agree that prisoners should be sent to England on homeward-bound ships instead.[3] In the war of 1739, Barbados and Antigua again found it possible to dispose of their Spanish prisoners in this way, but after 1744, when they had to deal as well with French prisoners in far greater numbers, they once more resorted to an exchange agreement, although this time on a man-for-man (as opposed to an all-for-all) basis.[4] This suited the colonists, but was much deplored by both the English admiral, who wanted no exchange at all,[5] and the French governor, who would have liked an exchange of all for all with no accounts kept. Jamaica in this war, from the beginning, had too many Spanish prisoners to be able to avoid making another cartel with Cuba, although many of them were sent to Europe,[6] and when France entered the war a 'tacit cartel' for a loose general exchange was allowed with

1 After war was declared against the United Provinces in 1780, a cartel was made between Jamaica and Curaçao (Ad. 1/242, Rowley to the Secretary to the Admiralty, 20 September 1782).

2 S.P. 42/119/296 and encl., *Calendar of State Papers, Colonial* (hereafter referred to as *S.P. Col.*), 1706–8, pp. 12, 399, 443, 482, 536, 650; *Journal of the Commissioners for Trade and Plantations, 1704–1708/9*, p. 130; *S.P. Col.*, 1710–11, p. 207, S.P. 42/119/209. This practice of crediting surpluses was the chief source of the very wide discrepancy between the French and English exchange accounts in Anne's war, since the French insisted that 1,755 inhabitants of Nevis, which they had raided and forced to capitulate in 1706, should be regarded as naval prisoners of war and included in the accounts (cf., for example, S.P. 42/131/247).

3 *S.P. Col.*, 1711–12, pp. 28, 73, 161, 162, 280; *ibid.* 1712–14, p. 35.

4 C.O. 28/46/108.

5 Admiral Knowles's argument was that the merchantmen needed enemy prisoners to supplement their crews on the homeward voyage, that returning English prisoners evaded service in the fleet, and that in short only enemy privateers benefited from exchange (C.O. 31/23, 21 September 1744 and Ad. 1/305, 20 August 1745).

6 C.O. 137/56/258, 389, 393, Ad. 1/232, 30 August 1741, and 3 August 1742, C.O. 140/31, 6 June 1744.

San Domingo, until Admiral Knowles arrived to challenge it.[1] From the later years of the Seven Years' War the navy's position was strengthened by the Admiralty's assumption of responsibility first for the subsistence and then the exchange of prisoners; yet since it remained true that neither governor nor naval commander had 'exclusive authority' over policy with regard to exchange,[2] bitter disputes continued to be common. The navy firmly believed, for example, that only Governor Burt's ill-judged return of numbers of French prisoners late in 1779 enabled Lamothe-Piquet to refit and sail early in the following year.[3] Complete control over exchange in West Indian waters was achieved only by Rodney—and perhaps it is not entirely a coincidence that he alone of all eighteenth-century commanders increased his reputation there. 'No exchange shall be made in these seas without my approbation', he repeatedly insisted. 'The French ships are in the greatest want of men, therefore it will be necessary to detain all French prisoners except those which I sent from Barbados to be exchanged in lieu of an equal number that was promised from Guadaloupe.'[4] Particularly alert, as always, to the significance of prisoners in terms of manpower—after both the capture of St Eustatius and the battle of The Saints—one of his first orders was to comb the prisoners taken for neutrals and British renegades who could be enlisted in the fleet or induced to help man his homeward-bound prizes—Rodney allowed only man-for-man exchanges, arranged strictly for the benefit of the fleet. He therefore employed on this service exclusively frigates which returned directly to the fleet; for once returning prisoners had landed they could only be pressed with the Governor's permission, and efforts to overcome this difficulty by meeting hired exchange boats before they landed commonly failed.[5] It may be added that in North American waters naval considerations were as apt to be disregarded as in the West Indies, although perhaps rather more prisoners were made to work their passage to Europe in merchant ships. For in the northern colonies the pressure of severe winters, as well as shortage of provisions, often led naval officers and governors alike precipitately to get rid of them by a general release hopefully regarded as an exchange.[6]

1 Ad. 1/234, Knowles to the Secretary to the Admiralty, 6 April 1748 and encls. Vice-Admiral Davers's earlier criticisms of exchange can be found in C.O. 140/31, 11 November 1745.

2 Germain's ruling to Governor Dalling, 8 October 1779, C.O. 137/75/120.

3 Ad. 1/312, Admiral Hyde Parker to the Secretary to the Admiralty, and encls., 20 February 1780.

4 Public Record Office (hereafter referred to as P.R.O.), 30/20/10, f. 148.

5 For Rodney's policy in 1781 see P.R.O. 30/20/10, ff. 72, 98, 107, 119, 172, 185, 189, 193, 212, 219, 225, 226, 285; and in 1782, see P.R.O. 30/20/5, ff. 68, 93, 105, 249. Rodney was equally alert over his rebel American prisoners (cf., for example, P.R.O. 30/20/10, f. 280).

6 For example, Ad. 1/481/513, Ad. 98/2/129, Ad. 1/3817, William Gooch to the Secretary to the Admiralty, 24 August 1745.

In effect, throughout the whole period of Britain's rise to maritime supremacy the disposal of prisoners in distant waters was constantly bedevilled by the complicated interplay of naval and civilian interests, practical and administrative difficulties, and private ambitions, so much so that even the most clear-sighted and forceful commanders and governors found themselves repeatedly overborne by these pressures. It took a Rodney to secure for the fleet in these waters the substantial advantages which proper handling of prisoners could bring.

NOTES

ROMAN SHIP WITH 'CLIPPER' BOWS

(*M.M.*, Vol. 45, No. 2, p. 158)

In his note under this heading Dr Bowen objects to my description of certain Roman ships in mosaics and elsewhere as having 'ram bows' and wishes to substitute 'clipper bows'. Why he should do this is beyond me. The ships of Sousse and all those mentioned in his note have stem-profiles precisely the opposite of those found in any clipper. They project at the waterline, whereas a 'clipper bow' projects at the top beneath the bowsprit. I do not seriously suggest that American clippers sailed upside-down, but really that seems the only possible explanation of his use of the term in this context!

On the more important question of whether the form of bow shown really existed or was the result of an attempt by artists to combine features of both ships and galleys I remain unconvinced, but willingly admit that I have no right to be dogmatic.

R. C. ANDERSON

POLACCAS

(*M.M.*, Vol. 43, No. 3, pp. 241–2)

The two notes on this rig in the August issue of this volume reminded me that I had come across a vessel so described in a shipping newspaper of the 'fifties. The vessel in question is not mentioned in the late Mr Vernon C. Boyle's article in the *Mariner's Mirror* (Vol. 18, p. 109). The circumstances were as follows.

In 1853 the barque *Bolton* (Captain Harvey or Darby) left London on 29 January bound for Sydney with 271 emigrants on board. She got ashore on Margate Sands the same day and returned to Gravesend. Leaving again on 16 February she reached Plymouth on the 18th, presumably calling in there to pick up more passengers. She left Plymouth on the 22nd and the same day, when five miles north-north-east of the Eddystone, ran into the 'forerigging of the "polacca" [sic] *Thomas & Nancy*' of Bideford, which sank in twenty minutes.[1] The crew of the polacca were saved by the pilot boat and landed in Plymouth. The barque *Bolton* proceeded. The *Shipping and Mercantile Gazette* 23 February 1853 described the *Thomas & Nancy* as a brig and said she was on a passage from Plymouth to Newport.

After calling at the Cape of Good Hope in May the *Bolton* duly reached Sydney on 23 June. This vessel of 541 tons was built at Liverpool in 1822 and in 1855 was owned in London by Brown and Co.

Lloyd's Register for 1852 shows the *Thomas & Nancy* as owned by Williams and Co., belonging to the port of Bideford. She is shown as a schooner, Captain N. Popham, having been built at Padstow in 1821 and registering 98 old measurement and 79 new measurement tons. She was fastened with iron bolts but was not yellow metalled; she had a new deck in 1841 and large repairs were made in 1851.

D. R. MACGREGOR

THE JOINERY OF MEDIEVAL HULLS

Although Mr Claridge, in the *M.M.*, 1959, p. 77, has given a very fully illustrated account of the carpentry of early vessels, it is doubtful whether many of his readers will agree that such a reconstruction can be attempted without qualms or misgivings. We know so little of the details of the ships of the period that it is to be regretted that he gives no authority for many of the points he mentions.

1 *Australian and New Zealand Gazette*, 26 February 1853, p. 205.

Perhaps the most perplexing problem—and the one most open to argument—concerns the method used to define the shape of the hull of a large clench-built vessel whilst the planks were wrought and fastened. We do know that the plank fastenings of the Hamble wreck were clenched before the timbers were inserted, since the fastenings lie under the timbers. It would of course have been possible to erect frame timbers and then remove them temporarily to finish the clenching, but this is unlikely. The principal difference noted by the early writers between clench and carvel build was that the former entailed planking-up the sides before the timbers were framed. In all probability some form of temporary mould was used, but it is not possible to differentiate between the filling timbers and the frame timbers, if any: all were notched over the lands of the planking. Another point is that we have no evidence of the date at which it became customary to bolt together the floors and futtocks where they overlapped. I certainly know of no evidence of such a direct fastening before Tudor times.

Mr Claridge's reconstruction of a 'typical coastal work horse' bears the caption, 'The Hamble River wreck'. Now, the two wrecks referred to by him, the Hamble wreck and the Northiam wreck found in 1822, have practically nothing in common, and their respective features cannot be combined in a single drawing. The Northiam wreck was a small vessel, probably a trader and equally probably of continental origin, whilst the Hamble wreck is the *Grace Dieu*; a very large ship, certainly a warship, and certainly English. The most important omission in the drawing is that of the beams, which would certainly have been built into the vessel as soon as the sides were raised high enough. In the Northiam wreck (thought by the finders to be a Dutch trading vessel) the beam ends were secured direct to the planking by 'rozenbults', in the manner later in use on the Rhine. The beam ends of the Hamble wreck projected through the planking, which was notched into them, in the fashion common to most of the medieval wrecks found in the Scandinavian countries. Some beams were of course secured by knees only, but it was only with the development of a complex internal framework of fore and aft members that the beams ceased to be fastened directly to the outside planking.

By far the best account of medieval ship-carpentry, illustrated by a series of drawings made from actual wrecks, is that given by H. Åkerlund in his *Fartygsfynden i den forna hamnen i Kalmar*, Uppsala 1951. Even this, however, leaves many questions unanswered.

W. SALISBURY

The various details of medieval ships given in 'Joinery of Medieval Hulls, *c.* 1450', which appeared in the *M.M.* for February 1959, are from recorded observations that have been published in sources available to all. After re-reading some of the source material and perusing other publications perhaps less well known, I believe that a typical 'coastal work horse' of the period would not have had the type of structure described.

With reference to the Gokstad ship, I suspect that the date of A.D. 300 is a misprint for A.D. 800 unless there has been a recent redating, with which I am unacquainted, to supersede that by Brøgger and Shetelig.[1]

Previous material published in the *M.M.* established that the River Hamble wreck is that of *Gracedieu* of 1418.[2] The same material indicated that she was a failure and made but one voyage, that from her building site in Southampton to the mud flats of the River Hamble where she was struck by lightning and burned in 1439. As she was a failure, it seems unreasonable to conclude that her complicated structure would have been employed for a 'coastal work horse' of about half her length. I have two views of the Northiam wreck and there is nothing in either to suggest the known massive structure of *Gracedieu*.

However, the construction details of *Gracedieu* are so well worked out, that such structure must have been employed, perhaps in a two-ply version, in the building of some of the other large vessels for the Royal Navy of the period. But in the case of *Gracedieu*, the method was extended

1 A. W. Brøgger and Haakon Shetelig, *The Viking Ships* (Los Angeles: Knud K. Mogensen Publishing, 1953).

2 Mrs W. J. Carpenter Turner, 'The Building of the *Gracedieu*, *Valentine* and *Falconer* of Southampton, 1416–1420', *Mariner's Mirror*. Vol. 40 (1954), pp. 55–72.

just too far and the fastenings were not adequate to develop the strength of the timber. Incidentally, I believe the nail shown in figure 3, page 80, *M.M.*, Vol. 45, No. 1, should have its round head on the outside of the hull and be riveted over the square rove on the inside—also the whole figure should be rotated 90° clockwise.

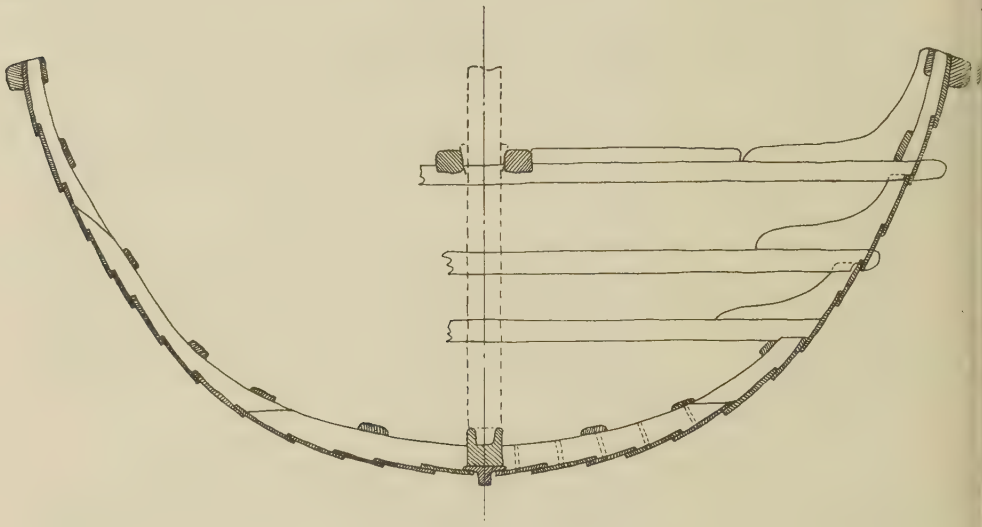

Fig. 1

I would suggest that the structure of a 'coastal work horse' might look more like that shown in Fig. 1. The right half of the section is taken at what might be called a web frame in later terminology while the left hand shows an ordinary frame. The tie beams protruding through the side planking and notched over a strake account for the small bumps shown on the sides of clinker-built vessels such as depicted on the well-known seals of Sandwich and Winchelsea. Although the Northiam wreck is described as having no keel, the additional information that her planking was about $1\frac{1}{2}$ inches thick points to single-thickness clinker planking rather than the more cumbersome multi-ply type.[1] A lead line and a traverse board found in the wreck indicate that she was a coasting vessel and not just a river craft.

The sketch is based on Find I from the harbour of Kalmar, Sweden, which had an overall length of about $33\frac{1}{2}$ feet, a breadth of about 14 feet, and a depth of about 6 feet and has been dated about A.D 1250. Admittedly, she is much smaller and earlier than the Northiam vessel yet essentially the same type of structure was found in several other wrecks from Kalmar that are dated as late as A.D. 1600. Find II dating from the fourteenth century measured in length and breadth about 59 × $17\frac{1}{2}$ feet, fairly close to the dimensions of the Northiam vessel, but her remains were not as complete as Find I.[2]

WILLIAM A. BAKER

'THE VIKING STONE'

(*M.M.*, Vol. 44, p. 335)

My esteemed friend, Mr T. S. Lascelles, recently called my attention to an article in *The Mariner's Mirror* relating to the Ladby ship anchor, in the issue for November 1958.

1 *A Description of the Ancient Vessel recently found under an old branch of the River Rother*, London, 1823.

2 Harald Åkerlund, *Fartygsfynden i den forna hamnen i Kalmar* (Stockholm: Sjohistoriska Samfundet, 1951).

At the same time, I availed myself of the opportunity to peruse the remainder of this interesting magazine, and in consequence, I hope that I may be permitted to point out that a complete (and, to me, entirely satisfactory) answer to query 16, p. 335, is to be found in an article by Dr Glyn Daniel, entitled 'The Minnesota Petroglyph', in *Antiquity*, Vol. 32, December 1958 issue. I think that you will find this to be well worth perusal.

JOHN PELHAM MAITLAND

THE LADBY SHIP ANCHOR

(*M.M.*, Vol. 44, No. 4, p. 294)

In the 'Ladby Ship Anchor' (*M.M.*, Vol. 44, 1958, No. 4, p. 294) Carl V. Sølver mentions that the Nydam Ship is exhibited in the University Museum, Flensburg. It may interest readers to know that it now lies in the Schleswig-Holstein Landesmuseum at the Schoss Gottorf, Schleswig. I cannot remember whether the anchor has been restored to the ship.

The Museum is worth visiting. It contains also a 'ribbed' dugout boat, 12 metres long, said to be fifth or sixth century A.D., found at Vaale, besides a small Iron Age dugout in good preservation.

A few miles to the south is Hedeby (or Haithabe), the fortified Viking seaport at the eastern end of the Dunewerk, a rampart running between the Schlei and the Eider, commenced *c.* A.D. 808 by King Göttnik as a protection against Charles the Great, which was added to and lasted into the twelfth century A.D.

Earlier works of reference state that the Nydam ship was preserved at Kiel; and a Danish antiquary told the writer that during the recent war, it was taken for safety to, if memory serves, near Korsor in the Island of Zeeland. The Danes in whose territory Nydam lay prior to 1864 and to which it was restored after the Plebiscite in 1919, put in a claim for retention of the ship; the Germans wished to take it back to Keil; and the British suggested as a compromise that it should be kept at Schleswig which is a good deal nearer to Denmark.

A. R. CROSS

SIGNAL RATINGS IN THE ROYAL NAVY

It is well established that the first official signal rating in the Royal Navy was the Yeoman of the Signals, who first made his appearance in 1816 as a petty officer second class, drawing £2. 4*s*. a month in a 1st-Rate. No junior signal rating followed until about 1860.

Who then attended to this branch of the naval profession in earlier years, and who were responsible for hoisting Nelson's 'Historic Signal' for instance? In the museum of the Royal United Service Institution there is a photograph of John Roome (or Roon), a landman, who was *the person* who performed this feat on 21 October 1805, all by himself. Since the handling of the colours, flags and such-like things was all part of their duty, there seem good grounds for thinking that it was the quartermasters and their mates; incidentally these were regular naval ratings listed as first- and second-class petty officers respectively, and were unlike their equivalents of to-day, who are only called quartermasters so long as they are performing that particular duty.

In a 1st-Rate at the beginning of the nineteenth century there were no fewer than eight quartermasters and six quartermaster's mates and this allowance seems to be ample even in action, when possibly half the number might be told off for the wheel, lead, and repairs below to tiller-ropes and so on, leaving, say, seven to deal with flag hoisting. A larger number than that would have meant their getting in each other's way.

It is true that certain individuals were known as signal-men at an earlier date, but this was not an official rating and denoted merely a man's occupation for the time being, in the same way as one would be called a leadsman, helmsman or look-out. There is the evidence of the Signal Book of 1782 where, under 'Observations', the following is stated: 'The Officer on Duty must be particularly attentive that the Signal-Men do not hoist the wrong stripes of the half and three-coloured Flags uppermost. . . .' I am sure this alluded only to the men who were managing the signals at the time.

I am indebted to our member Commander W. E. May, R.N., for letting me see some details which he has discovered in muster books of the Battle of Copenhagen period. Lord Nelson

transferred from the *St George* into the *Elephant* on 26 March 1801, taking with him a not inconsiderable retinue. Among them were Lieutenant Frederick Langford and Midshipman Robert Gill, who it is thought acted as signal officer and signal midshipman respectively. In the *St George*'s Muster Book there are also discharged one quartermaster, one A.B. and five ordinary seamen; the ratings with the same names (except for two minor discrepancies) are recorded in the *Elephant*'s Muster Book as joining her, but in this case the rating of the seven men is given as 'Signalmen'. All things considered, I believe this can only mean that they were brought by the admiral for signalling duties only. In this way no members of the *Elephant*'s ship's company would be called upon to take on extraneous duties with the signals.

According to the N.R.S. volume, *Logs of the Great Sea Fights* (II), details of the action are meagre; the only record of signals was kept in H.M.S. *Polyphemus*, which shows on 2 April 1801 thirty-nine signals having been made by the *Elephant* from 5.35 a.m. to 5.55 p.m. This works out at an average of a little over three signals an hour. There were no telegraphic signals at that time, although Sir Home Popham is supposed to have invented his famous Code in 1800. Anyway the telegraphic books had not been generally issued in 1801. It does not look as if Lord Nelson's seven special 'signalmen' were overworked during this battle.

HILARY P. MEAD

A HYBRID RIG

The accompanying sketch of a vessel seen off Mozambique, Portuguese East Africa, was made about thirty years ago.

She appears to be a blending of Western and Eastern rigs; perhaps an old European schooner that had somehow lost her foremast and had been re-rigged by an African or Arab owner in the style of a dhow.

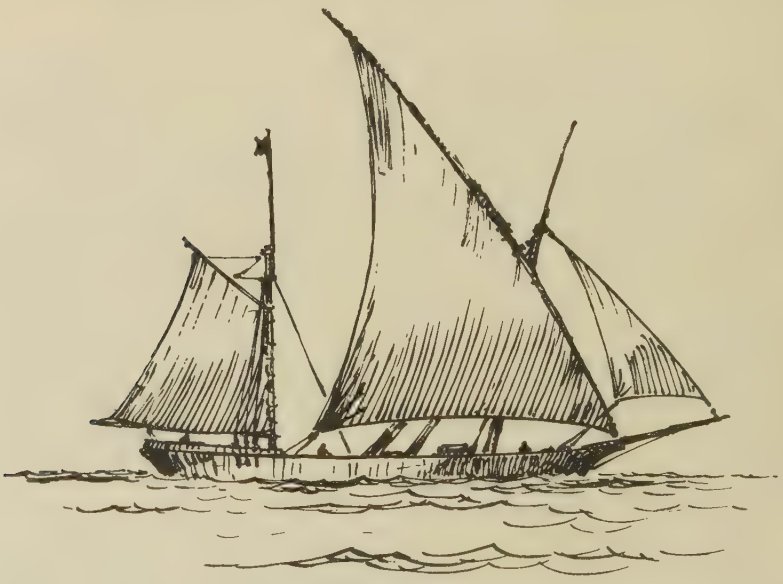

Fig. 1

As we passed her at sea I was unable to get a closer view of her, or of any name or port of registry that might have been visible.

C. H. WILLIAMS

THE *SUSAN VITTERY*

(*M.M.*, Vol. 43, No. 4, pp. 332–3)

The note submitted by Mr J. S. Conan about the *Susan Vittery* contained the ever-recurring remark about her 'fine lines'. But how fine were her lines? Were they ever taken off and plans produced? I never saw the vessel nor have I seen photographs of her dried out, so I am not competent to advise on this particular approach to determine her fineness. But some correct assessment should be made so that true comparisons can be drawn between her and other schooners.

In *The Merchant Schooners*, Vol. 2, Basil Greenhill gives a short list of vessels with their relative coefficients of under-deck tonnage. The *Susan Vittery*'s figure is 0·54, the same in fact as *Clara May* whose lines, which I took off, appear elsewhere in the book. *Rhoda Mary*, whose lines show that she was a fine-lined schooner, has a coefficient of 0·51. The guide given by the coefficients is an approximation, but within its limits, it would appear to indicate that *Susan Vittery* was almost as sharp as *Rhoda Mary*. Probably she was as sharp in the ends but may not have had such a tapered afterbody. The measurements of each ship are virtually similar. Taken from a Lloyd's Register of 1912 these are: *Rhoda Mary* 101·2 × 21·9 × 11·5, 130 gross and underdeck, 86 net tons. *Susan Vittery* 100·6 × 21·4 × 12·1, 140 gross and underdeck, 99 net tons. These measurements do not appear to contradict the result given by the coefficients.

D. R. MACGREGOR

STROND

Everybody knows that until the important and impressive Thames Embankments were built some of the reaches of London river were bounded by shallow straggling beaches, of which the strand between Charing Cross and Somerset House gave its name to The Strand, W.C. 2, of to-day. The question arises whether strands existed in the lower reaches of the Thames in the sixteenth century, particularly at Deptford, where, I rather think, there were wharves, docks and probably a river wall. Then there is the 'strond' which is an essential part of the title of Trinity House (London). Since the time of its first charter in 1514 to the present day the proper style of the Corporation has been 'The Guild, Fraternity or Brotherhood of the Most Glorious and Undivided Trinity and of St Clement in the Parish of Deptford Strond in the County of Kent'. The meaning of the word 'Strond' in this connexion has always been debatable and it has been taken as being the same thing as 'strand' referring to the shore at Deptford westward of the Ravensbourne tributary. Consequently, although Trinity House itself would not do such a thing, it has been a common practice to ignore the spelling and give 'Deptford Strand' as part of the Corporation's title. This is perhaps not owing so much to carelessness or laziness as to the belief that 'strond' is merely an archaic form of 'strand' and that one is justified in adopting the more modern spelling. In this there is the support of the dictionaries, even Murray recording simply that 'strond' is the same as 'strand'.

It was quite by chance that I came across in a Cinque Ports programme a short glossary of medieval words among which 'strond' is defined as 'a fee paid for landing'. I suggest that 'a *toll* paid for landing' would be more appropriate. A person possessing a private landing place, or for that matter a licensed public landing place, might have been put to some expense in its upkeep, providing a gang-plank or possibly a hard, and quite legitimately levying a toll for their use. At Deptford, close to the Trinity House property, was a water-gate where people were accustomed to land in the ferry coming from Millwall. The belief gains ground that this was the Deptford Strond, or local toll place of landing.

Will the compilers of the Society's forthcoming nautical dictionary admit this tentative suggestion?

H. P. MEAD

SOME NOTES ON BOAT BAILERS

It has been suggested that at one time there was a continuity of certain forms of material culture, particularly in boat design, between the island people of the Western Pacific and Scandinavia.[1]

1 J. Hornell, *Water Transport* (Cambridge, 1946), pp. 211–12.

Such a connexion is said to be either by way of the Arctic shores of Siberia or by the river systems of central Asia, sometime between 3000 and 1800 B.C. The evidence for such a theory consists of the similarity in the two areas of (1) peculiar constructional technique of comb cleats with inserted ribs, (2) high ends on some boats, (3) bifid ends on other boats, and (4) a form of bailer with internal handle.[1]

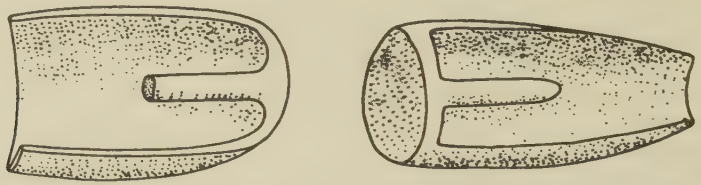

Fig. 1. Oceanic-type bailers. Left, that typical of the Oceanic islands; right, that used by some Norwegian fishermen to-day. (After Hornell, *Water Transport.*)

Fig. 2. Modifications of the Oceanic bailer. Left, the usually free end curves down to fuse with the bottom. Centre, the end of the handle has a cross-piece which joins the sides. Right, internal handle fused to bottom and peg projecting off back. These are always carved out of a single block of wood. (After Hornell, *The Canoes of Polynesia, Fiji, and Micronesia.*)

Much weight is placed on the similarities of the bailers in the two areas, which is so characteristic in the East with its inwardly projecting handle that it is known as the 'Oceanic' bailer (Fig. 1).[2] It is a fact that this type of bailer is spread throughout Melanesia, Micronesia and Polynesia in its typical form with an inwardly projecting peg handle.[3] There are two variations of this bailer, both obviously intended to strengthen and prolong the life of the bailer. In one the distal and usually free end of the handle curves down to fuse with the upper surface of the bottom (Fig. 2).[4] In the other type there is a cross-piece at the end of the usually free end of the handle meeting the top edges of the bailer at each side (Fig. 2).[5]

All of the bailers of the Pacific are carved from a single block of wood. A built-up form of one of the varieties of the Oceanic bailer is found in the Nicobar Islands. This is illustrated by an example preserved in the Manchester Museum, England, which I examined in November 1957 (Fig. 3).[6] Here we see that the handle with cross-piece is separately cut and lashed to the scoop, which is very rectangular in form. It also has decorative carving on one side of it. A very similar form of bailer is used by the quahaug fishermen of Narragansett Bay, Rhode Island, U.S.A. (Fig. 4).

1 J. Hornell, *Water Transport*, fig. 40, p. 211. 2 *Ibid.* pp. 199–213.

3 A. C. Haddon, *The Canoes of Melanesia, Queensland, and New Guinea* (Honolulu, 1937), pp. 23, 54, 117; J. Hornell, *The Canoes of Polynesia, Fiji, and Micronesia* (Honolulu, 1936), pp. 47, 70, 212, 247, 323, 356, 364.

4 A. C. Haddon, *op. cit.* pp. 66, 166; J. Hornell, *op. cit.* pp. 277, 291, 294.

5 J. Hornell, *op. cit.* pp. 142, 170, 381, 433.

6 I am indebted to Dr David E. Owen of the Manchester Museum for having the drawing of this bailer made.

One of these in the author's collection is made of $\frac{3}{4}$ in. boards nailed together. It is unusually large in size and could move a lot of water out of the flat-bottomed skiffs used in the clam fisheries. An interesting modification of this type, also from the Narragansett Bay and in the author's collection, is made from a rectangular gallon tin-can with one end knocked out (Fig. 4). A longitudinal member nailed to two cross-pieces fixed to the can serves as the handle.

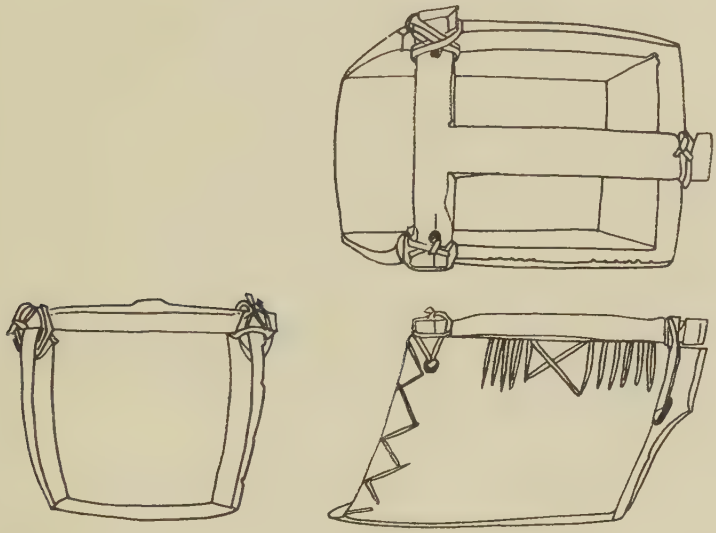

Fig. 3. Modified form of Oceanic bailer from the Nicobar Islands, in the collection of the Manchester Museum, England. Overall length of bailer $7\frac{5}{8}$ in. (Drawing furnished by the Manchester Museum.)

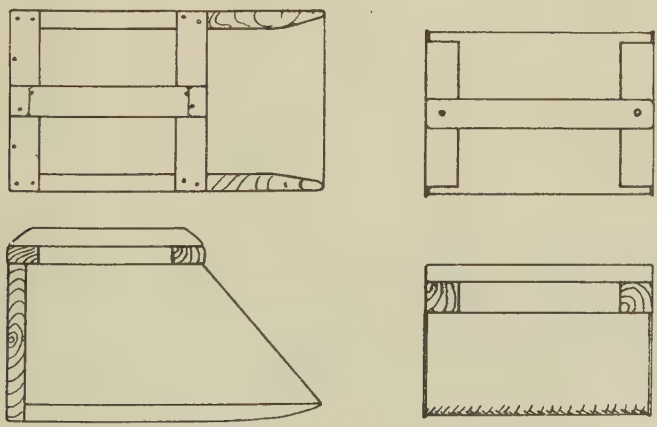

Fig. 4. Bailers used by the quahaug fishermen of Narragansett Bay, Rhode Island. Left, wooden type made of boards; overall length 13 in. Right, bailer made of gallon tin-can with one end knocked out and wooden handle added; overall length $9\frac{1}{2}$ in. (Original drawings by the author.)

The Scandinavian boat-bailers which Hornell compared with the Oceanic ones were certain bailers used by the *modern* fishermen of Norway (Fig. 1). On the other hand, the Scandinavian evidence for comb cleat and inserted frame construction, as well as raised and bifid boat ends, comes from the ancient boats excavated by archaeologists. These boats are anywhere from 1000 to 2000 years old. If there is to be any connexion between the ancient boats and the Oceanic-type bailers, the bailers obviously should have been used on the boats. However, we are fortunate in that a bailer was found with one of the boats, the Oseberg ship. It *is not* of the Oceanic type, or a modification of the type, for it has a handle projecting off the back of the scoop.[1] Therefore, the modern bailers of Oceanic type used by modern Norwegian fishermen actually become a problem by themselves, and they certainly cannot be used to show a connexion with the Pacific in ancient times. Brøgger and Shetelig say that the Oseberg bailer was a tremendous scoop, essentially the same in shape as those of to-day.[2] Whether this means that the common bailer to-day has an external handle is not evident.

The bailer with external handle constitutes a type basically different from the so-called Oceanic bailer. It is also found from Scandinavia to the Pacific. Sometimes the handle is just a round member projecting off the back of the scoop, other times it extends back the depth of the scoop with a cut-out area for the hand to fit through. This type with external handle is scattered over the Pacific, being recorded in numerous places.[3] Hornell points out that it has been suggested that the form is relatively modern. There is a form of Oceanic bailer which has a small peg projecting off of the back of the scoop on the other side of the internal handle (Fig. 2).[4] But I do not believe this has anything to do with an external handle. It may indicate that a separate member serving as the handle passed through the back of the scoop for strength, or it could be a monolithic copy of such a design when the usually free end joins the bottom.

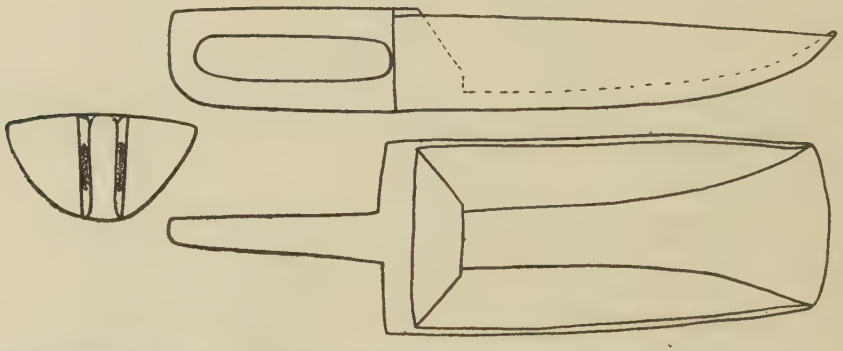

Fig. 5. Italian boat-bailer from the Sorrento Peninsula. Overall length of bailer 13½ in. (Original drawing by the author.)

Wooden bailers carved out of single blocks of wood with external handles are still used in Italy. I obtained one from Sorrento on the Sorrento Peninsula (Fig. 5). Every boat in the whole area had an almost identical bailer. They were not made locally, but were imported from the 'north' (how far north I did not determine). A number of boat models from Portugal in my collection also have similar bailers, with slotted handles, They are not more than an inch long. A wooden utensil identical to these Italian and Portuguese bailers has been found in an Egyptian

1 A. W. Brøgger and H. Shetelig, *The Viking Ships* (Oslo, 1951), p. 157.
2 *Ibid.* p. 136.
3 J. Hornell, *The Canoes of Polynesia, Fiji, and Micronesia* (Honolulu, 1936), pp. 216, 352.
4 *Ibid.* pp. 70, 277, 364.

tomb at Tarkhan (Fig. 6)[1]. The material from Tarkhan ranged from just before the First Dynasty into that dynasty, but the scoop is specifically dated at the start of the First Dynasty. Therefore, we may date this scoop about 3100 B.C. in round numbers. The excavators said that it was probably used for filling water jars.[2] Or it could have been used for grain, or other granular materials. And of course it may have even been used as a boat bailer.

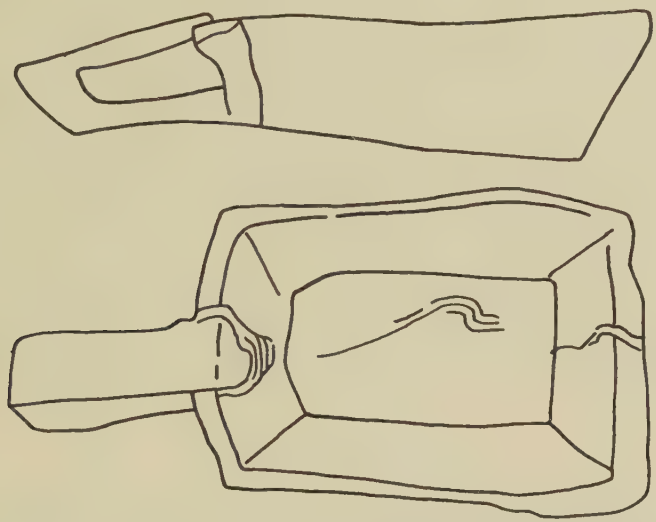

Fig. 6. Egyptian scoop of about 3100 B.C. from Tarkhan. Overall length of scoop $13\frac{7}{8}$ in. (After Petrie, *Tarkhan I and Memphis V.*)

Fig. 7. Egyptian hieroglyphs for the verb 'to bail (the boat)', showing the three forms of determinatives. (After Sethe, *Die Altägyptischen Pyramidentexte.*)

We find in the Pyramid Texts dating from the Sixth Dynasty (*c.* 2340–2180 B.C.) of the Old Kingdom the verb 'to bail (the boat)'.[3] Professor Richard A. Parker of Brown University (U.S.A.) has pointed out to me that there are actually three forms of determinatives of this verb known from the Pyramid Texts (Fig. 7).[4] They show arms in three different positions of holding a bowl. The second one is the most suggestive of the three, including as it does a boat determinative as well. These hieroglyphs all show a relatively shallow bowl. Whether this means that the Egyptian boat-bailer during the Old Kingdom was simply a shallow bowl is not evident. It could have been used for simplicity in the hieroglyphs, which were often relatively small and simply drawn. Köster, in discussing Egyptian shipping, says that a bailer was included in the

1 W. M. F. Petrie, G. A. Wainwright, A. H. Gardiner, *Tarkhan I and Memphis V* (London, 1913), pls. XI, XII. Dated to S.D. (sequence date) 77.

2 *Ibid.* p. 25. 3 C. Boreux, *Études de nautique égyptienne* (Cairo, 1925), p. 446.

4 K. Sethe, *Die Altägyptischen Pyramidentexte* (Leipzig, 1908), No. 950a.

inventory along with other equipment,[1] but since he does not give any references we have no way of telling whether this information comes from some text or whether he has just assumed it. Bailers are never found among the equipment of Egyptian boat models.

A bailer is not a necessary piece of equipment on a dugout. But a bailer of some kind was undoubtedly in use from the time man launched his first plank-built boat, for it must have leaked. And it is only reasonable to suppose that the first bailers were nothing more than some household utensil which would hold water. Various pottery vessels could have been used, but wooden utensils would have been more practical for they would not wear out the bottom of the boat. In the Persian Gulf to-day the Arabs of Saudi Arabia use tin-cans and other iron containers for bailing, and they occasionally have to patch the garboard strakes because the metal bailers wear holes in them. In the United States and England most modern hardware stores carry two forms of scoops: one is a 'sugar' scoop with the handle projecting back from the body, and the other is a scoop with an internal handle. Undoubtedly this general form of scoop was used in ancient times as a wooden utensil long before it was borrowed to serve as a boat bailer. But when it was put to use as a bailer it probably spread outward into areas which never used it in the household. Such seems to be the case of the islands in the Pacific.

It is hoped that these scattered notes on boat bailers may perhaps stimulate others to send in much-needed data on boat bailers, both ancient and modern. Only with much more data can any attempt be made to plot the distribution of types and draw any conclusions from them. The present evidence only indicates that there are two basic types, and that both seems to be very widely distributed.

RICHARD LEBARON BOWEN, JR

WIRE RIGGING

(*M.M.*, Vol. 43, No. 3, p. 249)

Some idea of the early history of wire rigging, referred to by Dr R. C. Anderson in Vol. 43, p. 249, is gained from the published 'Abridgements of Specifications' which was issued in 1874,[2] in respect of masts, sails, rigging, etc. The first patent granted for a type of metal rigging was in 1804 to John Slater (No. 2748), but this was for the substitution of iron chain cables for hemp. In 1808 Samuel Brown (No. 3107) patented the use of iron rods, welded together. He describes the shrouds abreast of the main rigging as 'formed of one continous length of the iron rigging'. Robert Bill in 1822 (No. 4644) took out a patent for the employment of iron chains instead of hemp rigging. In 1835 Andrew Smith (No. 6743, elaborated the following year by No. 7261) patented the use of 'metal rods or wires'. This is the first use of the word wire. The wires were joined together at each end but were apparently untwisted. There was a form of rigging screw specified for tightening up the rigging. Robert Stirling Newall had three patents. The first and second (Nos. 12,274 and 12,281) taken out in 1848 and 1854 repectively refer to the setting up of the rigging; the third, dated 1855 (No. 733), is briefly reported in the abridgement as follows: 'Wire rope for standing rigging is made of six (more or less) stout wires "laid or spirally bent round a core of flexible material" preferably gutta percha, though other "flexible waterproof composition" may be employed.'

I have given this last patent in greater detail because R. S. Newall rigged the clipper ship *William Connal* with his wire rigging in 1852. This is testified to by a long inscription under a lithograph of the ship. Unfortunately the picture is undated, but the statement under it that R. S. Newall and Co. of Gateshead-on-Tyne were 'sole patentees of untwisted wire rope' suggests that the lithograph—drawn by W. Clark of Greenock—appeared after 1855, this being the date of the patent. The inscription states that the ship was 'rigged to the truck with Newall and Co's patent improved wire rope' and there is an extract of a letter to the firm by her master, James Brown, dated 14 January 1853, as follows:

'As the *William Connal* is entirely fitted with your wire rigging and we have had some severe weather on the passage home against the South west Monsoon, it has had a thorough trial and

1 A. Köster, *Das antike Seewesen* (Berlin, 1923), p. 15.

2 *Abridgements of Specifications relating to Masts, Sails, Rigging, &c. 1625–1866*, printed by Order of the Commissioners of Patents (London, 1874).

the result enables me to recommend the use of it as superior to Hemp Rigging. I would suggest that the whole should be galvanized throughout with no serving except at Mast Heads, and as far as the end is twined up through a roller attached to chain on top of rail, and that Hemp rope be avoided altogether for standing rigging. I was not prepared to find so much elasticity in it as my experience has proved it to possess, so much so that it snarls up on the leeside when under a pressure of canvass, and thus prevents the Laniards from Chafing in the holes of the dead eyes.'

On this passage the *William Connal* was presumably homeward bound from China, whither she had gone from Liverpool. On her second voyage she left London on 13 February and reached Hong Kong on 31 May, 107 days out; at Whampoa she loaded tea and left on 5 July, reaching London on 26 October, 113 days out. Her third voyage began when she left Deal on 18 December 1853 for Bombay, but was wrecked on 8 April 1854 after going ashore at Harushpore, Bengal.[1] The *William Connal* was built at Greenock in 1852 by William Simons and measured 148·3 ft. × 26·3 ft. × 19·5 ft., 607 old measurement and 596 new measurement tons, being built of wood as a full-rigged ship and carrying nothing above her royals. The shares were divided almost equally between William Connal and Co., James Ewing and Co. and John Campbell, all of Glasgow. The lithograph of the ship is now in possession of William Connal and Co. of Glasgow.

The tea clipper *Fiery Cross*, built at Liverpool in 1855, had wire rigging that was galvanized throughout.[2] It is of interest to note that John Campbell of Glasgow was her principal owner, so that the lessons learned in *William Connal* were not wasted.

The iron ship *John Garrow* built at Aberdeen in 1840 is reputed to have had wire rigging according to Lloyd's Survey Report, though I have not examined the original document myself.

D. R. MACGREGOR

ANSWERS

2. (1955.) MUTINIES. I am grateful to Herr Molch for his exhaustive list of works on the German naval mutinies of 1918–19. To his list of Admirals' memoirs should be added those of Vice-Admiral L. von Reuter, which I have in a French edition (Payot 1929), entitled 'Scapa Flow'.

JOHN DE COURCEY IRELAND

10. (1958.) THE SETTING OF GAFF TOPSAILS IN SCHOONERS. Mr Basil Greenhill is quite right in his statement concerning the setting of gaff topsails on large American schooners. These sails were deliberately cut so that 'the lower part of the sail was on the weather side of the gaff, the upper part to leeward of the peak halliards', with the intention of making the sails set much flatter. This was common practice.

The drawing shows the running rigging on a typical gaff topsail. The sheet leads through a metal cheek block bolted to the end of the gaff, then across to a block hooked to the bottom of the gaff jaws, and from there down to the deck. The most unusual feature of the schooner rig, in my opinion, is the lead of the clewline. (On a normal jib or staysail it would correspond to a downhaul.) The clewline is spliced to the tack cringle and runs up the port side of the sail where it passes through a bullseye (sometimes called the 'bee hole') let into the canvas near the leach. The clewline continues from here on the starboard side up to a block at the peak, then down to a lead block seized to a sail hank, and on down to the deck. Vangs are not fitted.

To go about on the other tack, the sheet and tack are cast off the pins. One man goes aloft at each mast. When he reaches the gaff he crawls out and unhooks the sheet and carries it back with him to the crosstrees. The men on deck haul in the clewline. Since the clewline is seized to the tack cringle, this helps to empty the sail and also bunches the leach and tack against the masthead. The man aloft now grapples with the sail—a real job—and pushes it over the masthead to leeward to clear the springstay and peak halliards. To assist with this, the topsail halliard is slacked off. Now the man aloft has the additional job of pulling up the entire tack and passing it back to the deck on the new weather side. Several schooners tried to do away with this task by reeving double tacks, one to port and one to starboard.

1 *The Times*, 30 May 1854. 2 *Liverpool Albion*, 8 April 1856.

With the sail now on the desired lee side, the man aloft hooks the sheet again to the leach cringle, and the sail is sheeted home to the gaff end. The sheet is belayed on the starboard side of the bitts. As Mr Greenhill noted, the tack is on the weather side of the gaff. It is hauled well

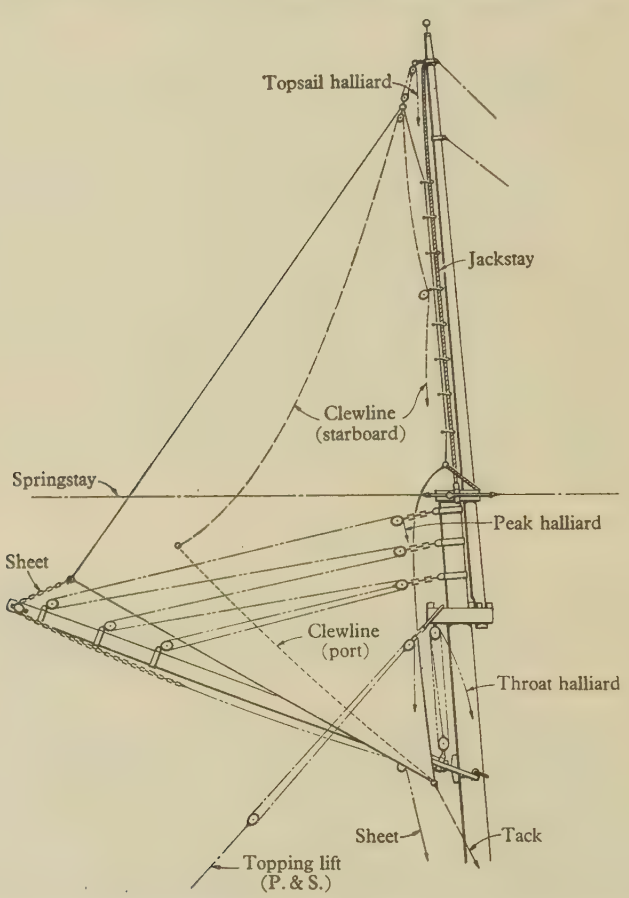

Fig. 1. Masthead of typical four-masted schooner, weatherside. Some standing rigging omitted.

down on the mast to get the sail flat, and taken around the mast for belaying on the lee rail. Finally the topsail halliard is manned and the sail is swayed up as high as possible, except when the vessel is running free or before the wind. In these cases little attempt is made to set the sail as flat as usual. The halliard is belayed on the starboard rail.

On the Pacific Coast there were some minor variations from this practice. ROY ROGERS

18. (1958.) The *Salamis*. *Salamis* is listed in *Brassey's Naval Annual* 1916 as 'a battleship of 19,200 tons, dimensions 571′ × 82′ × 25′, machinery 40,000 S.H.P. = 23 knots, armament 8-14″ (?), 12-6″, 12-12 pdr., armor 10″ belt, 2″ deck, 7″ side above belt, 10″ main & 7″ secondary battery' (p. 171).

La Guerra Sul Mare 1914–1918: *Le Forze Navali di Superficie e la Lora Tecnica*, Roma 1934, the Italian translation of the official German naval history (p. 38) calls the *Salamis* a battleship (nave de battaglia) as distinct from a battlecruiser (incrociatori da battaglia) and says that completion of the vessel was contemplated, but it was abandoned because the armour and armament

were ordered from America and it would be two years before Krupp would be able to furnish armour plate and a new armament.

Sir Eustace H. W. Tennyson D'Eyncourt in his memoirs *A Shipbuilder's Yarn* (pp. 155–6) says that in 1926 at the request of the Greek Government he reported on the prospects of reconditioning, modernizing and completing the battleship *Salamis*. He says '. . . there was no other course than to begin by pointing out that the poor *Salamis* had been to a great extent obsolete even as far back as 1920'. Recommendations for modernizing the design were made but would have been so costly that the Greek Government decided to scrap her.

ROBERT N. SHERIDAN

1. (1959.) THE *MAYFLOWER II*. The spritsail yard in the *Mayflower II* was not usually topped up to make a sort of quadrilateral jib of the spritsail when on a wind, because it was found that the sail set better with the spritsail yard braced sharp up—just a little sharper than the foreyard—so that the weather leech never shivered, and the tack stood quite satisfactorily even though there was nothing to take it down to. It stood on the weather sheet and gave no trouble. Captain Carl Bowman, U.S.C.G., told me that when sailing the reconstruction of the *Susan Constant* on the James River and in Chesapeake Bay, he did top up the spritsail yard to use the spritsail as a jib, and he said that this served very well. As for the lateen yard, this dipped quite well and all that had to be rigged down were the two tack tackles which were secured to the lower end of the yard, when it was in position. We slipped these smartly as the yard swung in the more-or-less upright position abaft the mast, and then attached the weather tackle first, also very smartly, to haul the yard to its new position. Nothing else had to be let go because the gear was on the yard abaft the mast and, so long as it was not two-blocks tight, swung with the yard. We always handled the yard with the sail brailed in and without the bonnet set, unless it was rather calm. The spritsail without bonnet had little area before the mast, and there was no gear on it there, so there was nothing to snarl up. The spritsail, incidentally, was one of the most important steering sails in the ship.

ALAN VILLIERS

QUERIES

16. (1959). TITLES OF RANK. In the Report of Court (No. 8003) into the loss of M.V. *Hawkstone* O.N. 182925, dated 27 October 1958, Appendix II, the learned court refers to *Captain* J. L. Blackman, *Tugmaster*; *Mr* A. H. Rands, *Skipper* of the auxiliary barge *Cabby*; *Mr* J. Barty, *Master* of the motor barge *Thistle*; *Mr* C. H. Cutling, *Master* of the motor vessel *Cresence*; *Captain* J. R. Burberry, *Master* of the river salvage vessel *Cormooring*; *Captain* A. C. Manson, Senior Nautical Surveyor, Ministry of Transport and Civil Aviation.

Could a reader enlighten me on how such prefixes are determined?

IAN MACROBERT

17. (1959.) THE *SAINT ESPRIT*. In 1627 the newly built French ship *Saint Esprit*, said to be of 800 tons, was captured by an English squadron in the Texel. She is mentioned in the Cal. S.P. Dom. in 1628, but not later. What happened to her? It seems strange that a large new ship should simply disappear. Pierre Le Conte's list of French ships gives only 1627 for her date, so it seems unlikely that she was returned to France at the end of the war. Perhaps she was handed over to the Dutch in view of the breach of their neutrality, but I know of no evidence for this.

R. C. ANDERSON

18. (1959.) CAPTAINS IN PARLIAMENT'S FLEETS 1644. I have not been able to trace a complete list of the captains employed in the summer and winter Guards of 1644: Penn printed only the names of captains in the Irish Guard 1644 (*Memorials of Sir William Penn*, 2 vols., London 1853, Vol. 1, p. 89). The Commissioners of the Navy prepared lists of the ships employed at sea in 1644 (Bodleian Library, Rawlinson MSS. A 223, 68–71, 76): is there anywhere a corresponding list of captains of King's ships and merchant ships?

D. E. KENNEDY

REVIEWS

THE HISTORY OF THE BRITISH NAVY. By MICHAEL LEWIS. London: Allen and Unwin. $8\frac{3}{4} \times 5\frac{1}{2}$ *inches*; 260 *pages*; *bibliography*; *index*. Price 25*s*. net.

Our Chairman's *History of the Navy*, originally published in 1957 as a Pelican at a modest 3*s*. 6*d*., will already be on the shelves of many members of the Society, side by side with his companion survey *The Navy of Britain* (1948). Together, the two works give the general reader the outline of how the Navy grew, and how it has been used in war.

Both volumes have already been reviewed in this *Journal*. It remains to add that (on the suggestion, originally, of an enthusiastic member of the Council) the Pelican edition has been reset and its text issued in a handsome library format, well printed, though—surprisingly—without pictures. It is one more instance of how a book, having enjoyed one public in paper covers, may win another at a higher price if, as in this case, it is good enough to become a standard work of reference. Although the more usual process is bound edition first, paper-back later, the reverse is equally welcome if it ensures that the book in question will continue in print for at least some years.

OLIVER WARNER

THE ANCIENT MARINERS. By LIONEL CASSON. Victor Gollancz, Ltd. $8\frac{1}{2} \times 5\frac{1}{2}$ *inches*; 306 *pages*; 16 *plates*. Price 21*s*.

Torr's *Ancient Ships*, published as long ago as 1894, has been up to now the only comprehensive work on the subject. It is not an easy book to use, because so much of its information is contained in very long footnotes and appears in Greek or Latin. Something simpler was long over-due and this Mr Casson has supplied.

His book cannot be said to supersede Torr's, but it makes full use of new evidence which has come to light since Torr's time and deals with ancient shipping as a whole, not merely with the actual ships used for fighting or trading. We are told something of the spread of Greek civilization to the western Mediterranean, of the growth of the power of Rome, of trade-routes and business methods, of exploration and of life on board.

In view of the way in which Mr Casson has widened the limits of his subject in a book of quite moderate size, it is remarkable how little he has had to omit with regard to the ships themselves. Anyone unable to obtain a copy of *Ancient Ships* or to make full use of its contents will find all the essentials in *The Ancient Mariners* with a much better series of illustrations. To put it quite briefly, this is a book to be read with enjoyment and to be kept as an authority.

R. C. ANDERSON

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